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II at Work
APPLE II PRODUCTIVITY NEWS

VOLUME 1, NUMBER 2 FALL 1989

New Organization Formed to Promote the Apple II

Asks For Increased Apple II Marketing Efforts

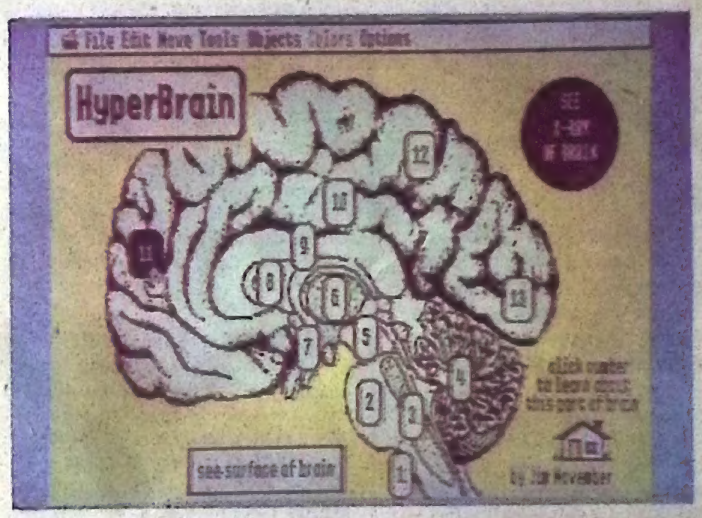
Meeting Scheduled for San Francisco AppleFest

Apple II developers, publishers and resellers have formed a new organization to support the Apple II, and to encourage Apple Computer Inc. to support and promote the Apple II product line. The new organization was formed on July 22nd at A2-Central's "Apple II Developer Conference" in Kansas City. The organization was formed at the suggestion of Barney Stone, author of *DB Master* and editor of "*II at Work*", and Ron Lewin, Marketing Director of Micol Systems, Inc.

A temporary board of directors was chosen by those in attendance. In addition to Stone and Lewin, the directors include Mark Simonsen of Beagle Bros., Roger Wagner of Roger Wagner Publishing, A-2 Central's Tom Weisaar, and Bill Mensch, designer of the 6502 and 65816 microprocessors that are used in the Apple II and Apple IIGS.

A meeting to officially organize the group has been scheduled for 9:00 AM on Sunday, September 24, at the AppleFest show in San Francisco. The meeting is open to all members of the Apple II "third-party support" community: professional programmers, software and periodical publishers, hardware developers, re-sellers, etc. Cambridge Marketing, promoters of AppleFest, have agreed to provide space for the meeting, and a number of officials and representatives of Apple Computer have been invited to attend. The temporary directors of the group hope to impress those Apple representatives who do attend with the seriousness of their concerns about the future of the Apple II product line.

The temporary directors of the group are preparing a paper on "the state of the Apple II" which they plan to send to a number of people at Apple Computer in advance of the meeting. The paper will call attention to what the group feels are the problems and the potential of the Apple II.



Hypermedia presentations can impress your customers, inform your patients and boost your sales into hyperdrive. Read about HyperStudio and "HyperProductivity on the Apple IIGS" on page 23.

Discussions Held at A2-Central's Conference

The new group, which does not have an official name yet, was formed following two days of informal discussions among conference attendees about the current state of the Apple II, and a sometimes tumultuous conference session with Apple representatives Jonathan Eder and Jonathan Fader.

At an informal luncheon meeting on the second day of the conference, Stone and Lewin proposed the formation of an organization with three stated goals: to encourage Apple Computer to do a better job of marketing the Apple II; to investigate ways in which the group could promote the Apple II themselves; and to represent the needs and concerns of Apple II developers in dealings with Apple Computer Inc.

In discussing those goals, the consensus of the group was that Apple has to return to aggressive marketing of the Apple II in order to keep its traditionally strong third-party developer support. Most attendees agreed that Apple's current

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EDITORIAL

GIVE AND TAKE

It's AppleFest time again, and Claris is nowhere to be found. Actually, I'm writing this about two weeks before AppleFest, so they may have changed their minds at the last minute, in which case I'm going to have a lot of egg on my face. But as of today, Claris is planning to skip their second AppleFest show in a row.

Does that bother you? Because it sure as heck bothers me!

Wait a moment, you say, Claris is about to start shipping a major upgrade to the "classic" AppleWorks program, and AppleWorks GS seems to be working better since its last update, so these guys are doing a lot for Apple II users, aren't they? Is it really significant that they're not going to have a booth at AppleFest?

Yes, I think it is. I think Claris is playing the same game of "give and take" with us that their parent company has been playing. Parent company? Yep, let's not forget who owns Claris: lock, stock and barrel (except for a few shares of stock owned by Claris employees) they're a wholly-owned subsidiary of Apple Computer, Inc. The same Apple Computer that will sell Apple II's "as long as there is anybody who wants to buy them", but won't lift a fiscal finger to advertise them.

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AppleFest Returns to SF

RECORD CROWDS EXPECTED DESPITE NO-SHOWS CLARIS, MEDIAGENIC

The third annual San Francisco AppleFest show will be held September 22nd thru 24th at Brooks Hall and the Civic Auditorium in San Francisco. Over 150 exhibitors are expected, including most of the top names in Apple II hardware, software and services. More than 60 conferences will be held on subjects ranging from school, home and small business computing to use of multi-media and telecommunications.

Cambridge Marketing Inc., promoters of the Boston and San Francisco AppleFests, are expecting over 20,000 paid attendees for this year's show. They report that pre-registrations are running almost twice as high as last year at the same time. Last year's San Francisco show drew over 16,000 paid admissions. The Boston AppleFest show in May of this year was the largest yet, with about 22,700 tickets sold.

Major exhibitors for this year's show include Apple Computer, Applied Engineering, Beagle Bros., Broderbund, Electronic Arts, Scholastic Software and Word Perfect Corporation. When asked about the number of exhibitors expected for the San Francisco show, Cambridge Marketing's Mike Dodge said the number of booths would be roughly the same as the Boston show, which

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FREE SUBSCRIPTIONS FOR QUALIFIED READERS!

II at Work is distributed free-of-charge to qualified readers. If you use an Apple II (or compatible) computer in your business or your professional, or for some other "productivity" application, we want to send you *II at Work*. However, to activate your subscription, you MUST complete, *sign* and return a copy of the subscription form that can be found in this issue. Send one in today so you don't miss a single issue of *II at Work*.

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GUEST EDITORIAL

Nibble Publisher Comments on Future of Apple II

[The following comments are excerpted with permission from editorials in the September and November 1989 issues of Nibble *Magazine — ed.]*

The New GS — What Next?

With the announcement of the new megabyte Apple IIGS, Apple Computer quietly calmed rumors that the Apple II was in danger of being discontinued. The Apple II user and developer communities have been starving for some encouragement, and the announcement was welcome news.

The highlights of the new Apple IIGS announcement are:

- The memory is being increased to a standard 1 megabyte.
- Portions of System 5.0 are being imbedded in the new standard 512K ROM.
- Minor improvements have been made in the sound reproduction.
- Slots can be dynamically assigned, rather than being dedicated to specific devices.
- A new multi-key facility (sticky keys) has been added for handicapped users.
- There is no increase over the current $1149 published price.

The announcement was unremarkable in itself. Large memory has been available on the Apple II for a long time from independent developers. According to the announcement, users who already have large memory systems can obtain about 90% of the performance of the new system by using System 5.0 software with their existing systems. In other words, imbedding elements of System 5.0 in ROM delivers approximately 10% improvement in system performance.

The bottom-line is that if you already have a one megabyte Apple IIGS, there's little incentive to move to the new system. The main advantage will come to new Apple IIGS customers.

Where's the Beef

The fact is that the Apple IIGS is a capable, powerful system. System 5.0 software enhances its performance substantially, and it sets up a standard platform that logically should attract new development activity. The main question is, who will buy the new system? Within the announcement, there was a conspicuous absence of a commitment from Apple Marketing to SELL the new system.

Apple's Products Group has delivered the new system into the hands of the Marketing Group, the people who are supposed to take it to market. Jean-Louis Gassee was quoted saying: "This change demonstrates again Apple's commitment to provide enhancements that improve the Apple II computing experience... the new Apple IIGS provides a much more robust platform for current and future software applications." But there wasn't any indication that the Marketing Group will promote, advertise, or sell new users on making Apple II buying decisions. The product announcement, by itself, is not enough.

Product vs. Market

As we have discussed in recent Viewpoint columns, Apple's strategy continues to be consistently product-driven rather than market-driven. The new GS represents yet another example of moving a new product from engineering ... to manufacturing ... to the market ... without answering the basic question: which market? It appears that Apple Marketing's answer to the question would be: Whoever wants to buy it.

Successful product-driven strategies depend on careful price/performance positioning, so that it is self-evident where the product fits in the product line. Unfortunately, even with the added memory, the price of the Apple IIGS continues to position it well above its direct competitors, and within the price range of the low end Macintosh. It is confusing at best, and self-defeating at worst.

In previous Viewpoint columns, we have pointed out that IBM, Tandy, and the clone makers are laying siege to the home, education, small business, and personal productivity markets with systems that are substantially lower priced. More important, they are actively SELLING those markets with well focused, disciplined, high visibility campaigns that present the benefits and ask for the order.

Here's an irony. If Apple were to shift from a product-driven to a market-driven strategy with an applications focus and a promotional punch, the Apple IIGS could probably overcome its pricing disadvantage and become a very strong competitor. We keep wondering when Apple will begin to recognize the value of its traditional markets, and begin defending them with some active sales and marketing of its own.

The Apple II Is Not a Toy

The Apple II is an outstanding system for:

- Personal productivity
- Home finance
- Entertainment
- Education
- Small business

There are 4-5 million installed Apple II systems doing these kinds of applications. Furthermore, a lot of the buzz words like connectivity that you hear in the Macintosh market have been around for years in the Apple II arena. For example, we run our entire company on a network of more than twenty-five Apple IIe's and IIGS's, interconnected to 300 MB of hard disk. Multi-tasking is a reality on our network, since each Apple II operates independent of all the others. At any one time, our network is simultaneously processing:

- Order entry and reporting
- Dealer accounting
- Advertising accounting
- Customer Service
- General Ledger
- Accounts Payable
- Accounts Receivable
- Subscription Fulfillment
- and more.

To put the activity volume into perspective, our Apple II network system handles more than 10,000 transactions per month! And the network obviously has fail-safe capability since the failure of one module/terminal involves a quick, inexpensive and simple replacement — while the rest of the system remains operational. The cost of implementing our system on the Macintosh would be six to eight times greater than it is for the Apple II. The Apple II is not a toy.

Back to the GS

Apple's announcement of the new GS was accompanied by supportive statements by three of the more prominent developers. The additional memory and performance set a platform for larger, more sophisticated applications. It has the potential for giving solid defense to Apple's traditional markets. But the foundation under which the Apple IIGS will rise or fall is Apple Marketing's willingness to AGGRESSIVELY MARKET AND SELL THE NEW SYSTEM. Developers can't do the marketing job alone. Current pricing won't make the system sell itself. And there's a lot of tough, committed competition out there.

We hope that the new Apple IIGS will get the marketing support that it deserves. It can be a market success and the marketing formula is straightforward: Build on the Apple II markets that already exist. They're there. They're proven. And everybody except Apple Marketing seems to recognize them as high growth opportunities.

What Would You Do?

A lot of people have asked: "What would you do about this if you were John Sculley?" Here's a scenario:

- Establish a clearly articulated and detailed corporate

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EDITORIAL

GIVE AND TAKE

(continued from page 1)

Let's try to estimate the revenues that Claris will generate over the next few months from this year's AppleFest attendees alone. Cambridge Marketing, promoters of AppleFest, are expecting about 20,000 people for the San Francisco show, in addition to the 22,000 who were in Boston. I would estimate that, conservatively, three-quarters of those people (31,500) own AppleWorks. If only half of those 31,500 people upgrade to AppleWorks 3.0 at $79 each, that adds up to well over a million dollars worth of upgrades.

And that's just from AppleFest attendees. If *only 10%* of the estimated 750,000 legal AppleWorks copies turn into updates, Claris will gross nearly $6 million from the upgrade to 3.0. If Claris does a good job of promoting the upgrade and sells it to 25% of those owners, the upgrade could generate as much as *$15 million* in sales. In case you didn't know, in the Apple II software market, that's a lot of money.

Add either of those figures to the normal sales of AppleWorks and AppleWorks GS, and you'll find that Claris is taking the lion's share of the dollars that will be spent in the next year on Apple II software. Because of the popularity of its programs, Claris also gets more free publicity than any other Apple II software publisher, with AppleWorks columns in many of the magazines and club newsletters. More AppleFest conference sessions are devoted to AppleWorks than any other subject, and, of course, Claris gets to show off their products in Apple's booth at the show.

Yet when the time comes to give something back to the Apple II community, Claris is conspicuously absent. AppleFest is critically important to the Apple II because twice a year it reminds all of us — the media, publishers, re-sellers, users and most import of all, Apple Computer Inc., of the enduring strength of the Apple II market. A lot of little companies that can ill afford it spend a lot of money so they can meet and talk with you at AppleFest. For Claris to say that they can't afford to exhibit at the show because direct mail is a "more effective" way of reaching their current customers is an insult to the 40,000 Apple II users who will attend this year's shows.

When we spoke to Claris, they said that they will have representatives at the show, but that their plans have not been completed. Asked if they would be in Apple's booth, they implied that they might be in other booths as well. I certainly hope that if they're sharing *your* booth, they're also sharing your costs!

Finally, in case you haven't heard, more and more Macintosh exhibits and exhibitors have been showing up at AppleFest shows (the worst offender, of course, being Apple Computer). To keep the show alive, and to keep it from turning into just another Macintosh show, we need all of the Apple II exhibitors we can get. When the largest publisher of Apple II software doesn't have a booth, that hurts: it hurts AppleFest, and ultimately it hurts every Apple II user who wants developers to continue producing new and better hardware and software for their computer.

When you send in your $79 to upgrade to AppleWorks 3.0, send a note along with your check. Tell them that you'd like to see a couple of dollars from that fee go towards Claris exhibits at *both* of next year's AppleFest shows. While you're at it, if you use AppleWorks in your business or profession, tell them that, too. The folks at Claris think that over 50% of their market is in the schools, and that very few people use AppleWorks in business. I think they're wrong. What do you think?

— Barney Stone, Editor

II at Work
APPLE II PRODUCTIVITY NEWS

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EDITORIAL, ADVERTISING, AND BUSINESS OFFICES
P.O. Box 3200, 1841 Norristown Rd., Maple Glen, PA 19002. (215) 641-1825.

POSTAL INFORMATION
Bulk mail postage paid at North Wales, PA. *II at Work* is published quarterly by Fox Pond Communications, 1841 Norristown Rd., Maple Glen, PA 19002.

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Address subscription inquiries to *II at Work*, P.O. Box 3200, Maple Glen, PA 19002 or call (215) 641-1825. *II at Work* is distributed free of charge to qualified subscribers. To all others, the one-year basic rate for the U.S. and Canada is $8. The single copy price is $2.00.

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1989: Year of the Fast Apple II

by Barney Stone,
President, Stone Edge Technologies, Inc.

If someone ever sits down to write the definitive history of our favorite computer, they are likely to see this year, 1989, as the year when *speed* came to the Apple II.

Actually, the first major speed enhancement for the II (we won't count the introduction of the Disk II — anything before that can hardly be called computing) came quite a few years ago, from a little-known company called, if I remember correctly, Number 9 Systems. I think it was a West Coast Computer Faire, and it must have been at least 6 or 7 years ago. Number 9 had a massive wire-wrapped prototype for a 3.5 megahertz Apple II accelerator card (3 and a half times the speed of a normal Apple II pre-GS) but people were pretty skeptical about it.

Well, they did eventually ship the Number 9 accelerator card (I think in 1983), and later the company changed its name to Saturn Systems, then to Titan Technologies, and the accelerator become the Accelerator II, which retailed for $599. That was followed in 1984 or '85 by the similar McT SpeeDemon. In early 1986, Applied Engineering introduced their TransWarp, which was less expensive and, unlike the others, accelerated both 64K banks of an Apple IIe. TransWarp soon became the market leader.

But as far as speed goes, the TransWarp was still running at about 3.6 megahertz, and that's where things stayed until just recently, when, in rapid succession, we got the 4 megahertz Zip Chip, the 5 megahertz Rocket Chip, and now the 8 megahertz Zip and 10 megahertz Rocket chips, both of which are either shipping or about to ship.

Then there's the TransWarp GS at 6 or 7 megahertz, and the recently announced Zip GS board at 8 megahertz. And of course the additional speed boost for the GS from GS/OS 5.0.

Suddenly, things are getting exciting.

Apples Vs. Oranges

(or Lemons, or Whatever ...)

Now, let's try to put these speeds into a larger perspective. According to Bill Mensch, the designer of the 6502 and 65816 chips that are used, respectively, in the Apple II's and the IIGS, an 8 megahertz 65816 is equivalent to a 32 megabyte 8088, 8086 or 68000, or to a 16 megahertz 68020 or 80286.

Tell *that* to your friends with the 8 megahertz PC's and Macintosh SE's and 16 megahertz Mac II's and SE/30's!

(The reason for the difference, Mensch says, is that his chips do in one clock cycle what the others do in four.)

Now, I'm not saying that an 8 megahertz GS is really as fast as a Macintosh II or a 32 megahertz MS-DOS computer. It might be, if it weren't constrained by the need for compatibility with interface cards and display circuitry designed years ago for 1 megahertz I/O.

But there are big things happening there, too. Ohio Kache Systems, by using sophisticated RAM caching and DMA (direct memory access) techniques on their Multi-Kache and Fast-Kache boards, is getting unheard-of performance from Apple disk drives, ranging from old 5 1/4" floppies to 3.5" diskettes to a wide variety of hard drives. Meanwhile, Applied Engineering and First Class Peripherals (the Sider hard disk people) are also rumored to be working on advanced disk access techniques.

I don't know exactly how the speed of an 8 or 10 megahertz Apple II with a caching disk controller would compare with a fast PC clone or high-end Macintosh, but that doesn't really matter. The important point is that the addition of an accessory or two to your Apple IIe or GS makes it a very respectable computer, and that you shouldn't be thrown off by those processor speed figures.

Visions of Apple II's Future?

Finally, there are those who dream of better things. Mensch, who

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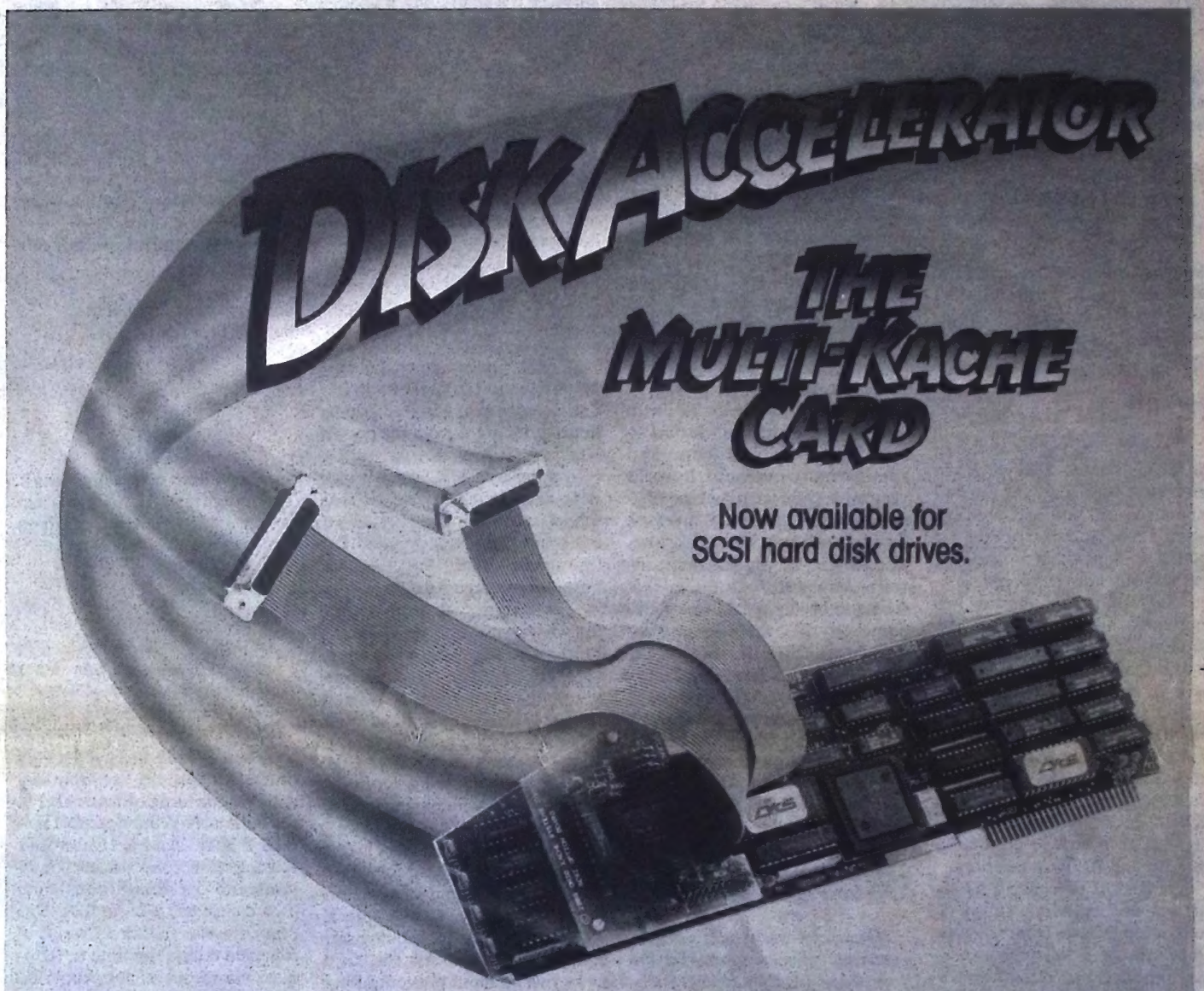

You're running a lot of extremely expensive software programs on your Apple II computer. Spreadsheets, data base, graphics, page layout...And you love all this stuff. Except for one not-so-little problem.

The waiting. Sometimes, retrieving information from your disk drives is slower than inter-office mail.

But you don't have to waste your time waiting on disk drives. Our Multi-Kache Card disk controller can make sure of that.

Here's how it works. The Multi-Kache Card uses a high-speed processor to read and write data from your disk drives. And this same processor stores your data in its high-speed "cache" memory before transferring it to your Apple computer. With disk-intensive programs, this eliminates constant, time-consuming data retrievals from your disk drives.

What this process gives you is speed. Serious speed. You won't have to wait for your programs to load or run. In fact, you'd better get your coffee before you load your program.

And you get all this speed without taking up any of your system memory. Speed that out-performs a RAM disk two to one. But speed that keeps your data safe as any non-volatile disk storage. And, since your disk drive isn't working itself to death — The Multi-Kache Card actually prolongs your disk drive's life.

But The Multi-Kache Card doesn't require a degree in Rocket Science to install or use. You simply plug it into one of the available slots in your Apple computer.

And The Multi-Kache Card is no stranger to your current hardware. In fact, it's compatible with most Apple 3.5 and 5.25 disk drives. And our newest option — the SCSI option — makes it compatible with any SCSI hard disk drive. And makes data transfers up to 10 times faster than any other SCSI board.

Of course, there's a lot more technical information we could tell you about The Multi-Kache Card. But first, try our 15-day trial — at absolutely no risk or obligation. And the time you save by using The Disk Accelerator will give you the leisure to browse through The Multi-Kache Card's impressive specs.

Call or write for our free brochure.

OKS

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LETTERSLETTERSLETTERSLETTERSLETTERSLETTERSLETTERS

The premier issue was well done and very appealing. I would like to suggest a letters column and maybe a subscribers' tip column.

Alex Serota

Here's the letters column. All we need for a subscribers' tips column is for some of our readers to send us their favorite helpful tips! — Barney

[Editors Note: In my "RAMblings" column in the first issue of II at Work, *I described a rather unsatisfactory encounter with one of Apple's "evangelists" in an airport waiting lounge.]*

Dear Mr. Stone,

I recently read your article in the spring issue of "II at work". In brief, I am very sorry for the bad experience that you had with my group. From your description, we did not do a good job of listening, and we were not very polite.

Regretfully, Evangelism will not be able to work with you. Our certified developer base has grown so large that the 20+ evangelists we have in the group cannot have contact with the close to 10,000 companies we have certified in the partners program. We care very much about your and every other developer's success; we just cannot afford (nor does it make sense) to hire enough people to personally work with all 10,000 developers.

Evangelism is focusing its efforts on working with a subset of the developer base, companies in the process of developing exemplary products that closely match our marketing and technology directions. Evangelism delivers its primary value in helping targeted developers refine the user interface, feature set, and positioning of what we identify as top priority development efforts. We identify our target developers by spending a lot of time at industry trade shows, staying in touch with what is going on in the development community, understanding what Apple's marketing directions are, and so on.

For some time, Apple's business marketing efforts have been focused on Macintosh. As a result, business software for the Apple II line is not a priority area in Evangelism. You and your product are important to us, and you should not be daunted because Evangelism cannot work with you. To facilitate development and commercial success by the majority of developers Evangelism can't work with, our sister group, Developer Services, provides a broad suite of information, tools, and services to help you succeed on your own.

I hope that your future experiences with Apple will improve. We are all dedicated to that purpose. Best of luck in your development efforts.

Sincerely,

Scott Schnell
Manager, Evangelism,
Apple Computer Inc.

Your newsletter, *II at Work*, comes at an excellent time. I use my Apple IIGS for my after-hours electronic design business, and I can really use a newsletter like the one you propose. I'm looking for fellow users of VersaCad's AppleCAD. It's a great program, but I've never been able to find another user to trade war stories with.

I use AppleWorks 2.0 with Timeout enhancements for bookkeeping, correspondence and administrative overhead. It works very well, the text based applications are just fine, and my next upgrade will be a hard disk. I am also looking for engineering software. All the stuff on the market seems to be for the MAC or PC. Somebody out there must have written an Apple II version of the Fast Fourier Transform, a matrix multiplication algorithm, and maybe a program that turns the IIGS into a function generator — any machine that can synthesize music can put out square waves!

The newsletter looks good, keep at it!

C M Schira
APO, San Francisco

I know a lot of you use Apple II's in science and engineering, areas that are generally neglected by Apple II publications. I'd love to see articles from some of you about what you're doing, maybe even find someone to write a regular column on the subject. Anybody interested? — Barney

I recently received the introductory issue of *II at Work*. I am heartened to find that others agree that there is a scarcity of information on the use of the Apple II for business purposes. I am retired and utilize my Apple II for writing personal and business letters, recording genealogical information, writing family histories, maintaining financial records, and documenting church committee work.

I am very interested in purchasing a laser printer to produce more professional looking documents and letters and to produce camera-ready materials for short-run publishing. Information regarding the use of laser printers with Apple II hardware and software is very scarce, both in publications and at computer dealers. I am sure that there are many others interested in higher quality (and faster) printing. Would you please consider an in-depth article on printers, with emphasis on laser printers, ink jet printers, and other alternatives?

Paul J. Curtin

That's a great idea. I know that a lot of our readers will be interested, and we'll start researching it right away. Meanwhile, perhaps some of our readers who use high-quality printers will write to us and share their experiences. — Barney

Thank you so much for *II at Work*. It is just the kind of publication I have been looking for! Timely information right from the people who make it happen.

I purchased a IIGS because my wife and daughter use IIe's at school and we could only afford one computer for all our needs. We figured the IIGS could fill both business and school needs.

I am a licensed general contractor who uses a IIGS for all of my business needs: word processing, spreadsheets, data base management, telecommunications, and CAD/CAM. After 6:00 PM, I use it for games, graphics, BBS, programming and church work. But I have been disturbed at the lack of support for the business end of my computing needs.

It looks as if *II at Work* is just what I've been looking for. Since the demise of *A+* and its more formal treatment of the Apple II world, I have been looking for something to give me the hard news I want about my computing needs.

Please add my name to your subscription list! Thanks for the good work. Apple II's forever!

Ray L. Bailey
Redlands, CA

Well you've finally done it! I have been waiting years for someone to come up with a publication that speaks to the small business user of the Apple II. Many software suppliers automatically think of "big blue" when it comes to business applications but they forget that the Apple II has been utilized for small businesses for years and it works just fine.

Apple II has one giant advantage over any other computer. Every high school graduate in my state has to be computer literate and what computer did they become literate on? Apple II. When they come to work for our organization there is no teaching time that needs to be devoted to the computer. They already know how to use AppleWorks applications and are ready to go to work immediately. That's a big plus for any business.

So congratulations for being bold enough to think of the thousands of us small businesses that need a publication that speaks to and for us. And one final word - we know that for you to stay in business and prosper you need advertisers, therefore I'll look to the advertisers in *II at Work* for my needs first before I go anywhere else.

Thanks again for risking your bucks on us.

Bob Berkowitz, President
Ber-Tec Broadcasting, Inc.
Crescent City, CA

Please keep up the good work. The magazine is an excellent source for those who use their computer for true productivity!

James Clement
Graham, TX

Thank you very much for your copy of *II at Work*. I enjoyed it very much. As you can see from my subscription form, I am a teacher in the Buffalo, N.Y. public school system. I have been a Health and Physical Education teacher for 21 years, and just recently bought my own computer, a Laser 128. This purchase was the direct result of someone taking the time to introduce me to one of the Apple IIe computers we have in our school. I now use my computer to compile and average test grades, store outline material for my Health classes, keep Physical Fitness statistics, and even use the spreadsheet functions to keep track of school fund raisers! I also use Springboard's Certificate Maker to print awards and help motivate students.

My wife has a part-time business selling cosmetics. I use the database to log her inventory and keep track of her clients, spreadsheet to take care of a beginning and ending value for her stock, for income taxes, and the word processing portion and mail merge to send out announcements of new products she will be offering. To print product announcements, I use the Print Shop and Personal Newsletter programs. All in all, I get my money's worth from my computer.

I agree with your newsletter about the use of the Apple II in business. I think that more software companies should take a serious look at writing for the Apple II.

We have 24 IBM PS/2 computers being installed in our computer lab this Fall, and quite frankly I can't see our students getting past DOS, let alone Word Perfect or Lotus 123. I am fluent with both systems, and I like my "good old Apple". Thanks for your newsletter, and keep them coming.

James M. Kapsiak
Tonawanda, N.Y.

This is great! Just what we need!

Joe Brennan
Arlington Heights, IL

Keep up the good work, guys! I much appreciated getting *II at Work*, even if the number of companies participating is low. Hope you have years of growth ahead.

Robert Calhoun

As you can see, this issue is more than 50% larger than our premier issue, and we've attracted a lot more advertisers. Hopefully our "company newsletter" section will also start growing soon. If you think it's a good idea, let some of our advertisers know! — Barney

Your newsletter is a *great* idea —thank you. And especially thank you for your support of the Apple II — I haven't begun to exhaust the possibilities of my IIe!

Betty Bullis
San Jose, CA

I too have been disturbed by Apple's apparent attempt to push the Apple II into kindergartens and nowhere else. Do you know whether there has ever been an attempt to buy all of Apple's interest in the Apple II line away from them? It would seem from the viewpoint of most users that would be the logical solution.

Thomas Donald

No, I doubt that it's ever been tried, but I know that the new Apple II developer's association (see article in this issue) is trying to convince Apple to form a separate division (as in General Motors' Chevrolet, Pontiac and Oldsmobile divisions) to produce and market the Apple II. Most of us feel that that makes more sense, and is a much

more realistic goal, than a totally separate company. — Barney

I thoroughly enjoyed your first newspaper, and hope you will put me on your mailing list. I use the Apple for budgets, recipes, swim team records, time cards, certificates, travel plans and records, and on and on. Can't imagine life without it! Keep up the good work.

R. W. Freeman

Thank you for *II at Work*. It is something that has been needed in the Apple II community for a long time. I especially enjoyed the article on hard disk concepts, although I read it from cover to cover. I have so missed having a source of "heavy" info on Apple II computers. Keep it rolling!

Gary J. McClain

This is great! Just what we need!

Joe Brennan
Arlington Heights, IL

Please excuse the tackiness of sending in two subscription forms at once, but both my wife and I were quite taken with your publication. As a school district librarian/media specialist, she relies on Apple computers for all sorts of administrative tasks and there are few publications stressing this form of use. The same applies to me at the community college level. Your publication seems to fill a void which has been completely overlooked or ignored by the other Apple magazines.

S. Fox

Love the publication. Keep up the good work. Especially appreciate more information on ways to use DB Master!

John Remington
Killbuck, OH

I'm writing to express my delight at receiving *II at Work*, which arrived shortly after I had finished reading Compute magazine's obituary for the Apple II line. I got more news of value to my consulting business (clients over the past five years include the U.S. Justice Dept., the National Park Service, and the Louisiana Part Service) from this single issue than I have from a year's worth of *A+* magazines. hope *II at Work* proves as durable as the Apple II series.

Carl Brasseaux

Congrats on a new, needed publication! Looking forward to seeing more of it.

Eric Kutsunai
Kanawa, HI

Thanks for the copy of *II at Work!* I just bought an Apple IIGS and the articles in your newspaper were invaluable. I plan to buy products from the vendors that advertise with you, including Applied Ingenuity, Ohio Kache Systems, and the like. I plan to purchase a hard disk, larger memory card, accelerator and disk cache to speed up my GS. I do work on my HP Vectra at work, and modem the files to the GS for weekend work. I also am learning assembly language on the GS.

Please send me a subscription to *II at Work*. It ranks right up there with pubs like *A2-Central* and *inCider*. Thanx!

N. Pell
Waldorf, MD

I truly enjoyed your article "RAMblings of an Overworked Programmer". Although I've never had the pleasure of being snubbed in person by Apple or its employees, I do have the dubious distinction of being an Apple owner who uses the machine in his business. We who have seen a business potential in the Apple II line of computers have, with notable exceptions, been ignored for years! It's too bad that Apple has done all it can to try to discourage people from writing powerful, useful programs for the Apple II.

My story is simple. Five years ago we had a family crisis. The typesetting company my mother worked for had been sold and she was soon to be out of a job. At the same time I was losing my job as a graphic artist because the man I worked for was going to retire and close his shop. Since our fields were closely related, we decided to go into business together. So we pooled our resources and opened our business.

From the start the center of the business was a lowly Apple //c computer. We made it work, night and day, and it never let us down. We used it to generate the funds necessary to build the rest of the business, as well as write letters and do billing and record keeping. Today we count among our other business equipment two Apple IIGS's, an Apple //e, and yes, the original Apple //c, which can also pinch-hit as an educational tool for my nieces.

Apple Computer Co. has chosen to deny that people like me exist, but that's OK. I guess in my small way I am extracting revenge. At least once a month I go out of the office to show a new customer how to turn their Macintosh desktop publishing file into a plain old ASCII text file, which I then read (with a custom program) from their disk into my //e, where I process it and send it through a "null modem" to my typesetter for the high quality output they hoped to get from the Mac!

It's people like you who are the heart and soul of the Apple II computer. For people like us, who are using our II's for work, the machine is not a "toy". Our computers work, and work hard, every day and in all aspects of our business. What we need is powerful, fast, versatile software, and that is what you and others like you can give us. Please, spare me from graphic oriented, mouse driven, pokey software: I don't have the time.

Bruce Kasten
The Typesetter, Inc.
Madison, WI

Finally, something for the business professional. Thank-you. We've had great success with our Apple III's over the past 8 years, but they are becoming rather old and almost impossible to expand. In the Fall, we'll be switching to Apple IIGS's for some applications, and your publication looks to be a valuable resource during this change. Good luck!

John Coffin
West Harwich, MA

I'm not sure if I'm really the sort of qualified applicant you are looking for, but I hope so. I am weary of hearing what my antiquated //e can't do. Granted, it's getting plenty long in the tooth, but it can still do plenty of useful work.

I do wish to comment on your application form. I'm a one horse operation. The "function" response ought to allow for that possibility. I'd also feel better if the entire farming and animal husbandry industry didn't qualify as "other". It just adds to my feeling of isolation.

James Downing
Visalia, CA

I agree on both points. I've spent most of the last 20 years running one or two person companies, and we should certainly have a "function" category that's something like "chief cook and bottle washer". And I suspect there are more than a few farms and agricultural businesses that use Apple II's - maybe even enough to support a regular column in II at Work *(anybody interested?). It's probably too late for this issue, but I will look into revising the subscription form. — Barney*

Many thanks for the first issue of *II at Work*. It looks great! The idea of a co-op newspaper for third-party developers is brilliant, although some people may be confused by the blurring of information and advertising. Maybe we need a new name, like "advermation" or "infortising".

Your airport horror story with the Apple "evangelists" was so typical of the sort of thing I've experienced. Last month I helped set up an Apple product demonstration in the Douglas Aircraft (Long Beach) cafeteria at lunchtime. Apple and Computerland brought a Mac IIcx, Mac SE30, LaserWriter IINTX, Apple Scanner, and, oh yeah, one of those Apple IIGS things. The only software they brought to demonstrate the IIGS was Reader Rabbit. Nobody brought a cable to show how easily the IIGS can connect with AppleTalk. Nobody brought a copy of GS/OS (it looks too much like the Mac's Finder — it might confuse people). They NEVER demonstrate the IIGS with any kind of hard disk, because that would make it look like a grown-up computer.

Mike Markowitz
Mission Viejo, CA

Way to go! I am a "serious" user of Apple products (a II+, a IIGS, and a Macintosh). I have played about five hours of computer games in over 10 years of computer use. I have never used AppleWorks, am bored by graphics, and downright antagonistic to digitized sound (our would is far, far too noisy already).

The computers are used in my business almost exclusively (except for the occasional letter). I do tax preparation (using HowardSoft's Tax Preparer) and record keeping for small businesses. I also do all my own direct mail advertising (for which I use a 1500 record DB Master file). I have been driven to the Mac for spreadsheet work since there is nothing in the world like Excel. I run Word Perfect for long documents and have a very functional program called Trio that I use for quick, short items such as statements, brief letters, etc.

Trio and DB Master are ProDOS 8 programs, so they can be controlled by Roger Wagner's SoftSwitch. The main advantage of SoftSwitch with DB Master is constant access to the desktop. This means I can copy a backed-up file onto other disks very quickly. SoftSwitch also lets me access several years of my tax software, which otherwise would require a reboot for each year and for the state verses federal version.

In effect, with SoftSwitch I can have an integrated program made up of units of my own choosing. I can have up to eight programs as long as there is enough memory. The standard mix for my daily work is the desktop, DB Master, Trio, and the federal and state tax programs for the current tax year. That lets me boot and use three more programs without closing any of my standards.

My biggest hope is that Excel will become available for the GS. Perhaps your publication will encourage more serious programs for our "family". I fear that the lack of enthusiasm for AppleWorks GS will be put down to a limited interest in serious programs for the machine, rather than to unpopular aspects of the program itself.

By the way, the II+, since it runs the HowardSoft programs, becomes a big printer buffer. After doing the preparation on the GS (faster, more features, better keyboard), I put the 5 1/4" client data disk into the II+ and do the very slow printing with that machine, freeing the GS for more preparation.

Thank you again for providing a means of convincing developers, etc. to take the II family seriously.

Beverly Henderson
Pacifica, CA

Note: SoftSwitch is a program that lets you treat an Apple IIGS as though it were several Apple IIe's, running a number of ProDOS 8 programs at the same time, and switching back and forth between them quickly and easily. — Barney

This paper is the best idea yet. Much better than any of the magazines out there. Keep it up.

Guy Calabro

GUEST EDITORIAL

Nibble Publisher Comments on Future of Apple II

(continued from page 2)

marketing strategy. Educate, motivate, and discipline sales and marketing to follow the strategy.

- Restore customer service as a hallmark of Apple's corporate culture. Promote it. Reenforce it. Reward it.
- Recognize and defend the strategic value of the home and small business markets as low-end foundations — the "first love" principle — for new generations of Apple buyers. Put teeth into a new Apple II, low-end market strategy.
- Stop forcing the Apple IIGS to become a Macintosh. It's not a Mac. Feature-itis is killing it by driving its pricing into competition with the Macintosh product line.
- Put a $5-600 souped-up "super Apple II" into market competition with PC/Compatibles with the express goal of migrating Apple's 5 million unit installed base to a new generation Apple II.
- Put muscle back into Apple II marketing with application-driven television, print advertising, and serious promotion. Take the offensive.
- Stimulate new promotional and market excitement with a $995-1295 Apple II laptop that contains AppleWorks in ROM.
- Plan a second-stage, 2-4 year migration from the "super Apple II" to a low-cost Macintosh with Apple II-on-a-chip compatibility.
- Cross-train the hardware/software designers in each others' disciplines and work backward from the market to a coherent architecture for the next five years... for the Macintosh and Apple II families.
- Insist that new hardware, software, and services for both the Apple II and the Macintosh must fit within the context of the market-driven strategy as the criterion for product launch.
- Put stability and accountability into the organization with a moratorium on major reorganizations. Organization change disrupts the continuity of strategy execution. It takes the new regime "off the hook" for decisions of the past. And it stimulates change for the sake of change as new managers try to make their personal mark.

The technology exists to do these things. Changing corporate culture and strategy isn't easy, but it's been done before and can be done again. Apple's financial position is strong, and it's still a great company. But Apple should take a strategy lesson from IBM. Whether it will recognize its mistakes, correct them, and regain control of itself will be pivotal to its future. A lot of Apple computer owners care deeply about seeing Apple rediscover its strengths, its markets and its customers. We do too.

Mike Harvey
Publisher/Editor
Nibble Magazine

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PRESS RELEASE FROM APPLE COMPUTER

Apple Increases IIGS Standard Memory

CUPERTINO, California—August 15, 1989—Apple Computer, Inc. announced today that it has increased the memory that comes standard with its Apple IIGS® computer, offering greater value to new Apple IIGS customers for no additional charge.

"This change continues to demonstrate Apple's commitment to provide enhancements that improve the Apple II computing experience," said Jean-Louis Gassee, president of Apple Products. "Together with the new Apple IIGS System Software 5.0, first available last month, the new Apple IIGS provides a much more robust platform for current and future software applications. Customers will find the Apple IIGS faster, more responsive and more capable than ever before."

The Apple IIGS now comes with 1 megabyte (technically, 1.125 megabytes) of random-access memory (RAM) and 256K of read-only memory (ROM) — rather than the 512K RAM and 128K ROM in the Apple IIGS it replaces. With 1 megabyte of RAM standard, the computer will operate on the AppleTalk network system and handle larger documents and more sophisticated applications without the need for added memory. Additionally, some features of the new System Software 5.0 have been included in the computer's ROM, providing developers more efficient access to system tools. The new Apple IIGS is compatible with hardware and software designed for previous Apple IIGS computers.

Apple IIGS Developers Welcome New IIGS

Prominent Apple IIGS developers are pleased with the new 1-megabyte Apple IIGS and the type of applications it supports. "The value of the Apple IIGS has been enhanced tremendously," said Stan Roach, vice president, Activision Presentation Tools. "Apple is responding to the needs of users and developers by introducing this new machine."

Roger Wagner, president of Roger Wagner Publishing, Inc., commented, "The new Apple IIGS with System Software 5.0 is real evidence of Apple's continuing support for the Apple II. The new standard memory and system software significantly improve the speed and performance of an already powerful machine. Combined with the new Apple II Video Overlay Card, the system provides a perfect environment for sophisticated applications like our HyperStudio hypermedia system."

Additional Features of the New Apple IIGS

Several other changes have been made to the Apple IIGS. Specific slots must no longer be dedicated to specific uses, so there are effectively more slots available for custom configurations. Additionally, a new logic board design produces minor improvements to the computer's sound.

Other enhancements for people with disabilities allow them to manipulate the mouse and use the keyboard more easily. A new "sticky keys" feature enables users to activate several keys simultaneously with single keystrokes. Additionally, users who have difficulty moving the mouse may increase the computer's responsiveness to mouse movements and may control more functions from the keyboard rather than the mouse.

Upgrade Path — The recommended upgrade path from the current Apple IIGS 512K is to add memory (available in 256K increments) and install System Software 5.0. Many Apple IIGS customers have already added memory to their machines and will obtain about 90 percent of the new machine's functionality by installing the new system software. Apple is not offering an upgrade kit because the required logic board replacement is not cost effective for customers.

Price and Availability — The suggested retail price of the Apple IIGS with keyboard, mouse, manuals, system software and guided tour remains $1149. The machine is currently available in limited quantities from authorized Apple dealers. Full-capacity production will begin in early fall.

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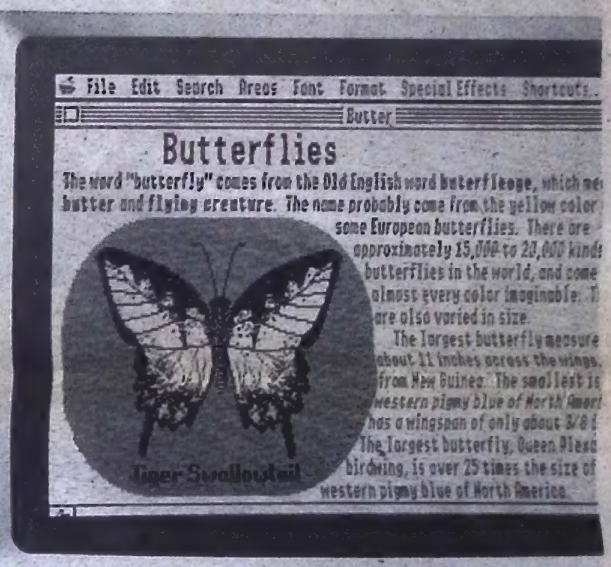

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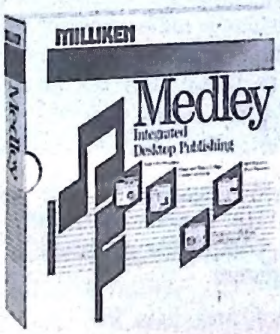

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AppleFest Returns to San Francisco

(continued from page 1)
is "a bit smaller" than last year's San Francisco show.

This year's keynote speakers will be Jean-Louis Gassee, President of the Apple Products division of Apple Computer, who will open the show on Friday, and Bernard Gifford, Vice President of Education at Apple, who will speak on Saturday. Gassee, who joined Apple in February, 1981, is currently responsible for product marketing, manufacturing, and research and development.

This year there will also be special "educational keynote" addresses each day of the show. The educational keynote speakers will be Bill Lord, Vice President of ABC News Interactive, Alan November, a "Christa McAuliffe Educator" of the National Foundation for the Improvement of Education, and Cary Hammer, Director of Programming at Scholastic, Inc.

In addition to the usual conference sessions, this year's schedule includes a new track focusing on educational management issues for administrators and teachers, including sessions on "The Sophisticated Classroom", and "Strategies for Computer Management at the Building and System Level".

This year's show will also host the first official meeting of a new, as-yet-unnamed, Apple II developer's association. (See related article in this issue.)

Claris Skips AppleFest Again

The biggest disappointment for many attending this year's show will be the continued absence of Claris Corporation, an "independent subsidiary" of Apple Computer which publishes the hugely popular "classic" *AppleWorks* program, and the more recently introduced *AppleWorks GS*. Claris has generated a lot of excitement by introducing *AppleWorks 3.0*, a major upgrade to the long-time best seller, which began shipping in late August. *AppleWorks GS* went through its first major revision several months ago, and continues to generate a lot of interest as the leading integrated software package written specifically for the Apple IIGS. Many AppleFest attendees were looking forward to seeing the new programs and discussing them with Claris representatives.

As reported in the previous issue of *II at Work*, Claris skipped this year's Boston AppleFest because they are concentrating their AppleWorks sales efforts on the K-12 (kindergarten through twelfth grade) educational market. At that time, Kevin Harvey, product manager for Claris' Apple II products, said that participation in future shows would be decided "on a case-by-case basis".

According to Mike Dodge, Claris is aiming their marketing efforts at educators, and they don't feel that there will be enough high-level educational buyers at AppleFest to justify the expense of exhibiting. Dodge admits to being disappointed, and says he feels that Claris is making a mistake. "There's more to a trade show than just sales," Dodge explained, "There's the good will that comes from talking to your customers." Dodge was still hoping that Claris would change their minds at the last minute and join the other exhibitors at the show.

Speaking of a perceived lack of support from both Apple and Claris for Apple II users, Dodge went on to say: "Educators tell me that they want their Apple II's supported, and if they're not, they don't want Mac's, they're going to go to IBM's."

When asked about the show, a Claris spokesperson replied that although Claris would not have its own booth, representatives of the company would be present in other booths. They went on to state that "at this point, Claris is trying to reach its existing customers the best way we can", and that "direct mail is more effective than picking a show to attend".

Electronic Arts, who had also skipped the Boston show, will be returning to exhibit in San Francisco. However Mediagenic will once again be absent from the show. Dodge said that he perceived a "general belt-tightening" in the industry, but that most companies that are attending will have the same size booths that they had at previous shows.

When asked about the future of AppleFest, Dodge pointed to the success of this year's Boston show, which drew the biggest AppleFest crowd ever, and said that the plan is to continue the shows indefinitely. He said that Cambridge Marketing is looking for ways to bring in more music-related exhibitors, and for ways to get higher-level educational administrators to attend the show.

Man's Best Friend

Yes, InnerDrive has surpassed the dog as "man's best Friend". While InnerDrive may not bring you your newspaper or your slippers, it offers some "dog-gone" good features that make your life a lot easier... like bringing you AppleWorksGS at lightning speed. InnerDrive is the best value of any Apple II hard drive, and no bones about it!

As we've said before, there are two kinds of Apple II users - those who know they need a hard drive and those who don't know they need a hard drive, yet. What we mean by that is a hard drive is one of those misunderstood peripherals that can greatly increase the productivity and simplicity of your computer, if only you were to realize its potential.

A hard drive is as easy to use as a floppy disk drive. You load, save, and copy the same way. But a hard drive is so much faster than a standard drive that your time spent waiting for loading and saving is significantly reduced. And since there is so much storage available, all of your programs are at your finger tips. And that means no more tedious disk swaps or searching through stacks of disks.

The InnerDrive's advantages are superior performance, and high reliability, at an affordable price. InnerDrive is the first internal hard drive for the IIgs, the first hard drive to transfer data in 16 bits, and the first hard drive for under $500.

InnerDrive also comes with 6 megabytes of free software and GS/OS 5.0. A IIe version is also available. Our new Falcon is compatible with all Apple IIs and the Laser 128 computers.

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New Organization Promotes Apple II

(continued from page 1)

marketing efforts, which limit promotion of Apple II computers to the elementary education market, were driving developers and users away from the Apple II.

A number of people suggested that if Apple would not do a better job of marketing Apple II's, perhaps the new organization should do some marketing and promotion itself. One person pointed out that public relations efforts are a lot less expensive than advertising, and that a relatively inexpensive public relations campaign could be used to raise the visibility of the Apple II as a multi-purpose computer.

Other participants were concerned about the increased cost of maintaining a professional relationship with Apple Computer. Apple recently replaced its long-standing free programs for "Certified" and "Registered" developers with a new "Apple Partners" program that costs developers $600 per year. Several people stated that they would not spend that much just to get the E-mail based technical support and equipment discount purchase plan that are included in the Partners program. It was also pointed out that most of the materials in Apple's monthly mailings to developers concern the Macintosh rather than the Apple II. They felt that Apple II developers should not be charged the same annual fee as Macintosh developers if they are not going to receive the same level of interest and support.

Concerns Expressed at Apple's Session

At the "Apple II Update" session the day before, Jonathan Eder, Apple's "Entry Level Systems" manager, spoke of Apple's plans for the Apple II product line. He stated that the Apple II still generates about a billion dollars per year in revenues for Apple Computer, that the 5-millionth Apple II computer had already been produced, that there are no plans to stop producing Apple II's, and that the Apple II would have "a continued high level of support for many years".

Eder said that new Apple II product development would revolve around improved peripherals and interface cards, "incremental" improvements to the Apple IIGS, 16-bit system software enhancements, and making the Apple II and the Macintosh "work together even better", especially in network environments.

During the session's question and answer segment, the atmosphere in the room heated noticeably as one developer after another expressed their frustration at Apple's lack of support for the Apple II. Complaints included the fact that the company ignores the Apple II's potential as a small-business computer and limits its marketing efforts to the "K-8" (kindergarten through 8th grade) educational market, the fact that AppleLink developer technical support requires a Macintosh, and the high cost of the new Apple Partners program.

After one participant blamed Apple's marketing (or lack thereof) for the perception that the Apple II is not a viable business computer, Eder asked the audience what they thought the reaction would be "if Apple went out with a large-scale media campaign promoting the Apple II family as a business machine". At that point, Stone accused Apple of "not believing in your own machine". He went on to say that the Apple IIGS is a better computer than a PC-XT or AT for many of the 25-30 million home office workers in the United States, and that the newer Macintosh's are too expensive for that market. "(the Apple II) is a great small business computer, *but you don't believe in it.* And because you don't believe in it, your salespeople don't believe in it....You are cutting off the future of the machine because you are limiting its market."

Paul Statt, Senior Editor of *inCider* magazine, expressed his feelings that the Apple II is over-priced, and that "if the Apple II were a low-cost machine, it would sell itself" and solve a lot of the marketing problems that others had raised. Since someone from Apple had mentioned lower-cost computers as a goal, Statt wanted to know if that meant lowering the price of existing machines, or introducing new, lower-price Apple II computers. Eder answered that while Apple is looking into reducing manufacturing costs, their preferred way of lowering the cost of computing is to provide more functionality at the same price.

Let Your Child Play With A Power Tool.

This is one power tool you'll be glad to put in your children's hands. While other kids compete for time on school computers, the LASER 128® enables yours to get ahead at home.

And what an advantage they get. The LASER 128 is Apple®-compatible, so your children gain access to the world's largest library of educational software. Plus thousands of other programs.

The LASER 128 puts you ahead, too. It sells for nearly a third less than an Apple with fewer features.

With savings like that, you can buy a monitor and a printer for a complete setup. And teach your child a valuable lesson in getting more for your money.

How good of a computer will you get? Let's put it this way. The leading Apple magazine, *InCider,* suggests you "look at today's LASER if you want to see tomorrow's Apple."

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Computerizing a Podiatry Practice

Stuart A. Naulty, D.P.M

I started practicing podiatry in 1981. Things were simple back then: I felt busy if I saw six people in one day. But times have changed. I now see over 125 people a week in two offices, do hospital consults, nursing home calls, and perform foot surgery in my office as well as two hospitals. I used to do all the billing and insurance work myself, but obviously I do not have time for that anymore.

I quickly outgrew my old pegboard/ledger card system, a paper receipt and billing system commonly used in physicians' offices. Insurance forms waiting for completion were stacking up. I knew my accounts receivable were bad, but had no way of accurately tracking them. Several times I found a patient's ledger card with a two year old charge conveniently tucked away between pages of a chart. I had lost control of my practice. Computers seemed to be a solution but I had no experience with them. The cost seemed astronomical to me as well.

I started out small. I bought a Laser 128 computer and AppleWorks. I was amazed at what could be accomplished with this simple hardware/software combination. My system grew with the addition of a RamFactor card for added speed and AutoWorks to create macros for repetitive functions. AutoWorks also allowed me to print out my insurance forms.

However, as my practice continued to expand, it became apparent that something was missing. I had created individual computer solutions for different office tasks, but they involved a lot of repetitive data and time wasted entering this data. Somehow, I needed to integrate my various computer tasks.

Just as I was about to buy an MS-DOS clone, I stumbled across an ad for DB Master *Professional*, the only *relational* data base manager I have found for the Apple II line. With DB Master *Professional* I have been able to create a set of files to handle my billing, insurance form printing, patient recalls and daily charge/payment reports. I can have up-to-date account receivable reports any time I want them. In fact, I have been able to duplicate most of the features in medical office management programs costing $2-7,000.00 with a program that only cost me $295.00!

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MultiRam RGB -- Memory plus RGB Color for Apple //c
• Expandable, extended 80-column memory card
• Adds 64K to 1Mb of Memory to the //c
• State-of-the art RGB color (interface cable extra)
• RAM disk, AppleWorks expansion & diagnostic software
• List price - 0K - $155, 256K - $229, 1 Mb - $439

Contact your local Checkmate Dealer or call:
Checkmate Technology, Inc.
509 South Rockford Drive
Tempe, Arizona 85281
(800) 325-7347 or (602) 966-5802

We no longer have stacks of charts waiting for insurance to be filed. All insurance work is completed within 24 hours. My accounts receivable have come down considerably, too. We print out monthly reports of receivables and call people before the accounts get too old. Needless to say, I am very pleased with DB Master and would highly recommend it to anyone using an Apple II.

I have not thrown out my old programs yet. We still use AppleWorks for word processing, and I track my

(continued on page 12)

IIs at Work

Do you use an Apple II for business?

If so, let us know about it. IIs at Work is a new section that let's you tell your story. Simply write an article explaining what you use (hardware and software), what you do with it, how you do it, and how well it works. Send to: II at Work, P.O. Box 3200, Maple Glen, PA 19002.

Tracking Sales Orders, Invoices, and Commissions Using AppleWorks

Gene Bond, VP & Sales Manager, Control Sales, Inc.

First of all, let me explain who we are, and what we do. Control Sales is a Manufacturers Representative organization handling electronic and electrical controls, motors and sensors. In the past ten years we have grown from a one-man organization to seven people, covering two and a half states and eight product lines.

Our primary computer application involves keeping track of orders when we get them, matching them up with invoices when they are shipped, and then matching those invoices with our monthly commission statements. This was easily done with a set of files and a ledger sheet in the "old" days when there wasn't very much going on, but with the way things have grown, the ability to track our orders on a computer seemed like an important evolutionary step.

With our current computer system, we can quickly and easily get such information as lists of open orders, shipped orders on which commissions have or have not been paid, new orders, YTD (year-to-date) customer sales, YTD principle sales, etc. Each order (or shipment in the case of partial shipments) is kept as a separate record in the AppleWorks database. The single record format looks like this:

```
Terr:                          Principal:
Company:                       Inv No:
P.O. No:                       Ship Date:
Ord Date:                      Comm Date:
Amount:                        Comm Amnt:
```

From this single record format, we can print out all of the monthly reports mentioned above. For example, the commission reports look like this with group totals on "Company":

```
                                    September Commission Report
Principal equals Gadgets
Comm Date contains September

Company                        Amount      Com Amnt
ABC Industries                 167.32         16.73
CBS Inc                      11063.85        553.19
XYZ Co                           6.30           .63
                             * 11237.47     * 570.55
```

or like this, with group totals on "Terr" (territory):

```
                                    September Commission Report
Principal equals Gadgets
Comm Date contains September

Ter Customer     Ord Date    Ship Date        Amount     Comm Amnt
1   ABC Indust   Jun 6, 86   Aug 14, 86     18623.67       1862.37
    DEF Co.      Aug 2, 86   Aug 30, 86        72.00          3.60
                                            *18695.67      *1865.97
2   etc.
```

Once our reports have been printed, we post the month-end data in two other files (which I'll discuss in a minute). The only drawbacks to this system that we have identified are: having to post the totals in the other files, having to split an order when a partial shipment is made, and having to print another report with group totals for each customer.

We have found that the reports we get at the end of the month are more complete, more accurate, and require less time and effort for our secretary to enter and proofread than our old manual system. By simply arranging a file by customer and purchase order or invoice, it's easy to go down through the

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Money Grows on Trees

Peter J. Hannan, a tree surgeon in Westport, Connecticut, has really found a way to put the Apple II to work. Back in 1983, Hannan decided to automate his tree business. After buying an Apple II and trying some of the specialized programs that were available back then, it became apparent that his companies needs could not be met by off-the-shelf software.

To Hannan it didn't seem like a very difficult problem. He tried several accounting packages, but it became clear that accounting software could not effectively run the daily operations of a service business. Since most service businesses use a card file or ledger system to maintain their accounts, he became convinced that service businesses need all of the information about each of their customers — transactions, payments, account status, and so on — in one place, making it easy to answer customer inquiries. The accounting programs just didn't work that way.

So he turned to data base management software. While this seemed like a simple database application, there was no data base manager for the Apple II back then that had the ability to produce invoices and statements. Frustrated by the lack of applications software, Peter ended up spending a year and a half developing a program he could use to run the day-to-day operations of his tree care firm.

After evaluating several data base management programs, Hannan chose to work with DB Master Version Four Plus. Although it could not produce all of the reports he needed, it could output data to a DIF (Data Interchange Format) text file, where an Applesoft Basic program could be used to generate invoices and statements.

The main drawback of that system was that every time changes were made to the main file, you had to generate a new DIF file. That was very time consuming, and complicated enough to open the door for errors.

However, the system at that point was sufficient to run Hannan's business, and he decided to try selling it to other tree service companies to recover some of the time and money he'd put into its development. A company called Arbor Computer Systems was formed to market the package. It was sold as a complete turnkey system, including all of the hardware, software, paper products, extended warranties, and unlimited telephone support needed to run the daily operations of a tree company. A national trade magazine reviewed Hannan's system and remarked "the wonderful part about this package is that *it works*." Between the article and Hannan's contacts in state and local tree organizations, sales started to grow.

In 1984, the publishers of DB Master introduced a "Programmer's Pak" that allowed direct access to DB Master files from Applesoft Basic. That eliminated the need for creating the cumbersome DIF file, and it also allowed multiple files to be opened and updated with information from a variety of sources — the beginnings of relational data base management. The program could now be totally menu driven, generating invoices, statements, contract renewals, route lists, work schedules and work orders whenever needed. All the user had to do was choose one of those functions from a menu, and enter the starting and ending dates to be used.

With the advent of accelerator cards, printer buffers and hard disks, Hannan was able to deliver a pretty sophisticated system for 1984. The package became very popular, and today Arbor Computer Systems claims to have more tree companies using its software than any other company in the

(continued on page 12)

Until You Try DB Master *Professional*, You Won't Know How Powerful Your Apple II Can Be!

Powerful and easy to use.
DB Master's relational "import and export rules" go beyond simple data collection and analysis to actually automate record-keeping and accounting tasks. You'll be amazed at how powerful it is, and how easy it is to use. There's simply never been anything like it for your Apple II!

Don't just analyze — Automate!

DB Master *Professional*

TECHNICAL SPECIFICATIONS

Capacities:
- 2000 bytes/record
- 200 fields/record
- 30 screen pages/record
- 250 characters/field
- Hard disk files—up to 16 Megabytes
- Floppy disk files—up to 50 disks

Field Types:
- Alphanumeric, 1 to 250 characters
- Numeric—3 types
- Dollar/cents, to $99,999,999,999.99
- Yes/No
- Date
- Add Date—date when record was added
- Edit Date—last date when record edited
- Add Time
- Edit Time
- User Defined—for phone & social security numbers, part #'s, etc.
- Label Only—useful for customizing screens

Report Generator:
- print labels, columnar, forms-style and mail merge reports
- report width: 20–255 characters
- up to 255 lines/record
- up to 255 fields per report
- type free-form text anywhere on report layout
- labels up to 9 across
- set justification, print-styles, case conversion, number formatting, statistics, date formats, etc. field-by-field
- header and footer lines: separate lines of text (including normal and computed fields) at beginning/end of report, page, group of records, and/or column
- column subtotals and totals, page #'s, record #'s, & date or time report is printed can be printed anywhere on the page or in header and/or footer lines
- statistics: count total, average, min., max. & standard deviation
- complex computed field formulas, including calculations based on column totals and subtotals
- sort on up to 9 fields at a time; case sensitive/insensitive, ascending/descending
- print to printer, disk (ASCII text file), or screen
- Conditional Printing — "IF-THEN-ELSE" logic in report layouts

Computed Fields:
Date, numeric and dollar fields can be computed. Functions available:
+ - * / A= <>
> < >= <=
AND OR NOT INT
ABS SGN MIN MAX
Current Date
Examples:
F10 = F7 + F8 + (.08 * F9)
F99 = MAX(F10,F11,F12,100)
F89 = .50 * (F30 = "PA") + .50 * (F30 = "CT")

Hardware Requirements:
- Apple //e (Enhanced, with extended 80 column card), //gs, //c, //c Plus or Laser 128
- NOT COPY PROTECTED. Can be installed on hard disk

ADDITIONAL FEATURES

Relational Capabilities:
- Import & Export Rules—"relate" up to 10 files for automatic look-ups, posting, etc.
- Import data into records and/or into reports
- Exports can replace, add to or subtract from data in destination field

Data Entry Features:
- Global Editor
- Secondary Keys for rapid searches on specific fields
- Required & Validated Fields
- Increment, Decrement and Calculator functions
- Tab Stop Fields & Short forms speed data entry & editing

Other Features:
- Password Protection for file security
- "Receipts" function for "point-of-sale" applications
- Date and Time Math
- and much more!

Stone Edge TECHNOLOGIES INC

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Computerizing a Podiatry Practice

(continued from page 10)

business and personal finances with AppleWorks spreadsheets. My accounts payable are done with Quicken. I like the way Quicken automatically transfers information over to my AppleWorks spreadsheets.

I am creating a checkbook file for DB Master, but so far I still prefer Quicken because it is so easy to use. However, that simplicity is also one of Quicken's drawbacks. At the end of each year it's wise to create a new Quicken data disk. But there is no way to transfer uncanceled checks to the new disk. You cannot even print out a list of these checks. You must start at the beginning of your data disk and manually scroll through the file. When you find an uncanceled check you write it down on a piece of paper. After you complete your list you must reenter these checks in the new data disk.

Another problem with Quicken is that the AppleWorks transfer does not work properly with AppleWorks 2.1. The problem is actually with AppleWorks. If you perform the calculations in the spreadsheet (OA-K), 2.1 only performs the formulas in fields where the data has changed. While this significantly speeds up spreadsheet recalculations, 2.1 does not recognized data transferred from Quicken as changed data. I'm anxious to see how AppleWorks 3.0 handles recalculations. I hope they offer a choice: full recalculation or changed field only recalculation.

While expensive, I have found my subscription to CompuServe invaluable. I live in rural Kentucky and it is hard to find anyone here pushing the Apple II like I have. CompuServe gives me a powerful link to people with similar interests. When I have a problem, it is usually answered in less than 24 hours. I communicate with my Prometheus 2400 baud modem using Talk is Cheap. This telecommunication program is inexpensive yet powerful. The macro functions let me automate my log-on to CompuServe and my local BBS. I have only two minor complaints. I wish there was an editor (mini-word processor) for composing messages. This has not really been a problem since Talk is Cheap automatically translates AppleWorks files to ASCII while sending the message. The other problem is trying to remember the names of the messages I want to send. Talk is Cheap does not give you a list of messages you just composed. Instead of highlighting a message from a list, you must type in the name of the file.

I organize all of this on my hard drive with ProSel. The latest version of ProSel allows me to create my own menus and submenus. This benefits my employees more than myself. It protects them from "computereze". If they want AppleWorks, they just move the cursor over it, press the return key, and it boots. They are not bothered by pathnames or prefixes.

So many people snicker when I tell them I run my practice with an 8-bit Apple II clone. They say it can't be done, but I just smile. By the end of each work day, all of our accounting work is complete, and I did not spend $10,000 on hardware and software to do it!

Moving Into the Nineties... and Beyond

AppleFest '90
Conference & Exposition

May 11-13, 1990 Boston

September 14-16, 1990 San Francisco

APPLEFEST

Produced by Cambridge Marketing, Inc.

Apple II Works in News Service Company

Bob Sherman

Before I go any further, let me first explain that I am a workaholic, so when I refer to "spare time" you will better understand.

One of the things I enjoy doing during my "spare time" is working for my wife. Yup, she is one heck of a boss. She owns the largest privately owned news service in the southeastern U.S., and it's a 24 hour operation, so my hours can be quite flexible. A major part of her operation is based on the use of computers, Apple IIGS computers to be specific (ok, you can stop choking out there in Cupertino, it really does work well in a business). The computer handles just about every task needed.

With a Hayes modem connected, it allows us to access many databases, news services, newspapers, telex, and electronic mail services such as MCI. We use two telecommunications programs, ASCII Express Professional and Mousetalk, for sending/receiving files of various types.

All bookkeeping tasks and client invoicing are done with DB Master *Professional*, and remembering way back to the old days, when we did everything on a typewriter, wow, does the Apple make it a whiz to do. We even found a way to save on postage, by faxing our invoices as soon as they pour out of our Epson printer. (Too bad Apple doesn't see fit to release their Faxmodem for the Apple II series.) To make DB Master work for us, I designed our own databases for various uses. One handles the invoicing, another handles all of our travel and other business related expenses. We enter every charge card receipt and cash outlay into the computer, making life much easier for our accountant.

Now this may give you a chuckle — for word processing we use Magic Window! Yes, I know, it's old enough to grow whiskers, and it only runs under DOS 3.3, but it's "quick and dirty", with no mouse, no pull down menus and the like, just true hands-on-the-keyboard productivity. Ah yes, hands on the keyboard! Very important for productivity. After all, who wants to have someone on the payroll playing "mouseketeer"? When the documents are done, it only takes a few moments to convert them (if needed) to Prodos.

We use ProSel to manage our large CMS hard drives, which makes choosing programs very easy. And we supplement our hard disks with 3.5" floppy drives.

Last year, when I served on the Federal Communications Commission Radio Frequency Coordination Committee for both of the major political conventions (I was "donated" to the committee by the major publication that I also work for — I told you I was a workaholic), I used an Apple IIGS to do the entire coordination task involving several thousand radio frequencies. As many of you saw on Television, the conventions went flawlessly. I must say that several folks on the committee did inquire why I was using an Apple II instead of a "compatible", but as I expected, the Apple did the job easily with the help of DB Master *Professional*.

All in all, I have yet to need the computer to do something that it cannot do with the proper software. To me this makes the Apple II an excellent low-cost business computer.

Money Grows on Trees

(continued from page 11)

industry. The package managed over 150,000 accounts last year, and now includes accounts payable, accounts receivable, payroll and inventory control.

With the release of DB Master *Professional* in 1987, Hannan's package is now offered as a "template". It performs routine scheduling and routing of work crews, automates invoicing, and produces statements, spray contracts and form letters. It also generates estimates that convert to work orders, tracks crews and chemicals for reporting purposes, and allows detailed sales reports. And, since the user also owns DB Master, they have the power to modify the program as they like for their own applications. (Arbor's program is also available for MS-DOS systems.)

Mr. Hannan points out that you don't have to know how a television works to use one. He is convinced that the success of his product is due to its menu-driven ease of use. He also admits that being involved in running a quality tree company gives him an edge in producing effective application software for his industry.

Peter J. Hannan
Arbor Computer Systems
117 Weston Road
Westport, CT 06880
(203) 226-4335

Tracking Sales Orders, Invoices, and Commissions

(continued from page 10)

records in multiple record layout to look for duplicates. This was one of our major problems with the old ledger system, since our principals have been known to send a new order acknowledgment when an order is changed, and not tell us that it is just a backorder or order change. Another problem was that they have been known to not send acknowledgments at all. In the old system, that could cause an order to be entered as a shipment, but not as an order, so it would not show up in sales, but just in shipments. The same thing could happen when we were paid commission on something that we had no paperwork for.

Obviously, our computer system makes it easy to tell how much commission is owed to us, simply by calculating the amount times the normal commission rate in a separate column. This is very handy when we (or our principals) decide to part company — we know exactly how much they owe us. We also have some principals whose record keeping is less than adequate, and we have probably paid for a majority of our computer equipment in collection of delinquent commissions alone.

The other files which we maintain are Principal/Monthly Totals, and Customer files. The Principal file also contains our forecast sales figures, so we can easily see how we are doing on a YTD basis. We can also look at things like sales to shipment ratios (which are important to keep above 1.00 so that things will continue to grow) and sales to forecast ratio (which is important to keep above 1.00 to continue to represent a line).

The Customer file contains all of the important information for mailings, contacts, phone numbers, potential, etc. One of the fields in this file is YTD Sales, which is updated every month with total sales for all principals to that customer. An interesting point side-effect of keeping a customer file in the computer is the ability to keep all of the Rolodex files in the office up to date by printing the records on the continuous cards that are now available.

An additional benefit to this is the fact that many salesmen (myself included) have one of these "account books" or "planners" or whatever you want to call them, that have multiple rings to hold cards or specially punched forms in them (mine happens to be made by a company called Recordplate). The holes on the computer paper (the part we throw away) have the same spacing as the holes in the book. All I have to do to completely update my book with all of our customers is to print a list with the page size specified as 8 inches long, and 5 inches wide (I print it at 17 characters per inch to get it all on) and then trim it on a paper cutter.

Another important consideration is cost. Our total investment in computer equipment and software (not counting my time at home writing programs to chart performance and various applications engineering programs) is about $3,000. That includes two computers, each with two drives and a printer. One reason that I like the Apple II computers is that I can easily write my own programs to do some of these simple jobs, or buy them for far less than they would cost than for an IBM PC.

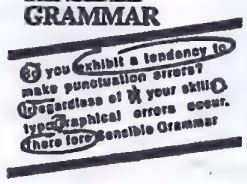
I realize that the drawbacks listed above could probably be resolved by using an IBM and dBase III, but now we're talking about a lot more money. Also, how many hours would it take me to re-write our programs for dBase?

Anyone who is interested in getting more technical information, or copies of our templates (including reports) can contact me at:

Control Sales, Inc., P.O. Box 469, Beech Grove, IN 46107

[Editor's Note: Gene could also eliminate some or all of the drawbacks to his system by using the new Beagle Bros. "TimeOut ReportWriter" with his AppleWorks data base files, or by switching to Stone Edge's "DB Master Professional" relational data base manager.]

HERE ARE SOME SENSIBLE SOLUTIONS



Sensible Grammar

This sophisticated proofreading program uses an extensive library of over 2,000 commonly-misused English phrases to identify pompous, informal, cliche, vague, wordy, repetitive, sexist, racist, and other faulty phrases in your writing. Also catches many punctuation, capitalization, and other typographical errors such as repeated words. Apple version autoloads onto RAM cards, can be used with hard disks, and works with most ProDOS word processors (including AppleWorks, Apple Writer, Bank Street Writer Plus, WordPerfect, and more). Also available for the Macintosh. Only $99.95

Sensible Speller

An electronic spelling checker that allows you to remove spelling errors in your document. Adds, ignores, looks up, suggests, marks and/or immediately replaces words. Includes over 80,000 words from the official Random House Dictionary. Takes only a minute or two to verify a 10-page document. Can be used on any hard disk and autoloads onto RamWorks and other RAM cards. Works with many ProDOS word processors. Auxilary word lists are available: Black's Law, Sensible Technical, Stedman's Medical at $39.95 each. Only $125.00

Report Card II

An easy-to-use grading system to make the process of compiling student marks more accurate and efficient. It makes grading more flexible by allowing you to weigh activities according to importance and gives you the ability to show student grades instantly as you progress through the school year. Handles up to 100 students and 90 activities. Includes two levels of weights, excused absences, zero grades, many reports, and much more. Also available for the IBM. Only $59.95

Bookends Extended

A specialized database for finding information and printing bibliographies. Allows storage of authors, journal, volume, page number, date, publisher, editors, location, keywords and abstracts, up to 760 (30,000 on the Mac) characters each. Data can be output in fully customized bibliographic and footnote formats. Output can be sent to the screen, a printer, or text files. Provides a complete alphabetized list of keywords and authors in the database. Also available for IBM and Macintosh. Only $149.95

All programs require an Apple IIgs, //c Plus, //c, or //e with a minimum of 128K of memory.

Sensible Software, Inc.
335 E. Big Beaver, Suite 207
Troy, MI 48083
(313) 528-1950

All products available at finer computer stores or directly from Sensible Software, Inc. (include $2.00 postage and handling, $12.00 for foreign orders).

Growing Your Business . . . with Desktop Publishing on Your Apple II

Cynthia E. Field, Ph.D.

"Everyone wants to feel special," notes Bob Hyssong, Jr., owner and manager of Floral Endeavor, an eight years young flower shop in southern Rhode Island. During the past nine months Hyssong has unearthed at least one well-kept secret: Apple II desktop published promotions not only make his old customers "feel special," but his postcards and coupons are winning him new patrons...almost effortlessly.

Like Hyssong, you can create a promotional piece of any kind by first booting up Timeworks' Publish It!2 or another Apple II desktop publishing program. Next, create a precisely sized template (a blank layout) for the type of piece you wish to distribute. Floral Endeavor's 15-cent postcard, for example, is 3.5" high by 5.5" wide. To save time and avoid hassles, Hyssong uses ready-made Publish It!2 compatible templates called "Business Pack 1" from C.E. Field Enterprises.

Whether you use your own template or a predesigned one, each layout may accommodate anywhere from one to about ten separate "publications" on a single, 8.5-inch X 11-inch piece of paper. A sign may take up the whole sheet, while a postcard takes up less than one-third, allowing you to fit three blank postcards on your single page template.

Design one postcard by adding text and graphics and, using Publish It!2 commands, copy and paste these objects to the other two cards on the screen. Print the page in double-strike mode on your dot matrix printer, and take this master to your local quick copy shop for printing on white or colored card stock.

Have the copy shop cut out your postcards...or separate them yourself with a personal paper cutter. Floral Endeavor's Hyssong likes to cut his postcards, address them, and lick stamps after hours at home. He quips, "Some people do crewel while watching TV; I do postcards! My customers appreciate the personal touch."

Macintosh advocates with laser printers might be surprised to learn that people don't mind the "computerized" look of Floral Endeavor's cards. In fact, the only "complaint" that Hyssong has received is from people who want to know why they didn't receive one of his home-grown promotions!

A typical Floral Endeavor direct mail piece includes one or two computer clip art illustrations. Sometimes Hyssong uses illustrations of flowers or potted plants; other times, he selects a theme graphic, like the reindeer he used at Christmastime or the rabbit he used at Easter. With hundreds, if not thousands, of illustrations available commercially or in the public domain, you're likely to find just the illustration you need—whether you're a computer consultant, a plumber, or a store owner.

Floral Endeavor's postcard text includes the basics: the store's name (in a large size font) and its location, telephone number, and hours of operation. For a given holiday, a card highlights the special products available: "roses galore" at Valentine's Day, "potted bulb plants" at Easter, and "outdoor flowering hangers" at Mother's Day. The cards usually include a shaded rectangle with overlaid, "transparent" text. The message might read, "'tis the season to show you care" (Christmas) or "nothing feels like flowers" (Mother's Day).

Hyssong's flower shop, which is located in a university town, offers a 10% discount to students as well as to senior citizens. A message on the card reads, "all others: present this card for a 10% discount." That enticement is what brings customers old and new into the store.

Hyssong estimates his response rate at no less than 20%. Often it's much more. Last Christmas, for instance, he figures that 35-40% of the cards were returned. And from one targeted group alone (area banks), he got a whopping 100% response!

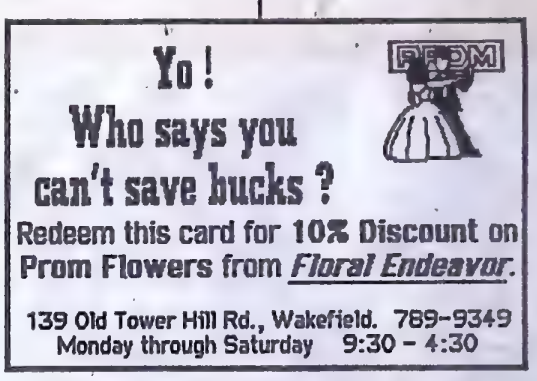
"The telephone book is wonderful," Hyssong says. "At different times, in addition to sending cards to the people and institutions on my mailing list, I key different groups like banks or real estate agents. Last Christmas, for example, one such agent purchased 28 poinsettias for people who had bought or rented houses through her during the year. My postcards are so economical that selling just a few poinsettias pays the $65 to $70 total cost of the promotion."

Thanks to the Apple II, the '89 prom season brought an even greater return for Floral Endeavor. Hyssong called class advisors for permission to distribute coupons at area high schools. He used a template to create convenient, pocket-size, "10% discount" coupons that he printed on gold card stock at a cost of less than 2 cents each. He saved all postage costs by placing bundled coupons in manila envelopes and personally dropping them off at the schools. At least 25% of the coupons were returned. Both teachers and parents praised the coupon's design and Floral Endeavor's "thoughtfulness" in offering kids a discount at an otherwise expensive time of year.

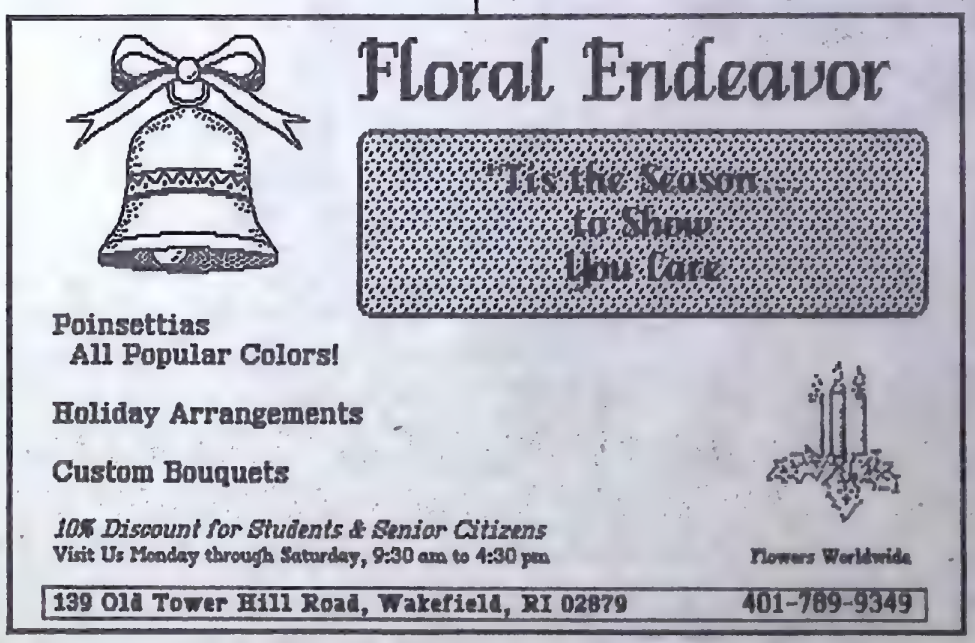
To get even more mileage from each desktop publishing project, Hyssong routinely keeps a stack of unaddressed postcards or coupons on the counter in his shop for two weeks to a month prior to a promotion. Doing so entices customers who come in to pick up a discount card or coupon and return during the sale for yet another purchase.

Floral Endeavor's Bob Hyssong, Jr., verbalizes every businessperson's complaint when he says "If I had more time, I could easily find slow periods (like summertime) to promote or other events (like nursery school graduations) to target."

One thing's for sure: Hyssong's not complaining about teaming up with an Apple II desktop publishing system. He's discovered that spending an hour or so creatively adds a whole new dimension to the adage, "time is money." You'll find that—even if you don't run a flower shop—when you use an Apple II to make your customers feel special, you can't help but make your business grow.



Floral Endeavor's Prom Coupon Promotion



Floral Endeavor's Holiday Postcard Promotion

Looking for a Hard Disk?

PLENTY TO CHOOSE FROM — LOT'S TO KNOW!!

Joe Gleason,
Quality Computers

This past year you may have seen several articles on hard disk systems for your Apple II. Chances are you've read these articles quite closely if you've been looking for a hard disk. Once you understand what a hard disk can do for you, the question of whether or not you want one is already answered: of course you do! They are fantastic and they can add real speed, power and convenience to your computer. Most likely the biggest consideration standing in your way is the cost of a hard drive. They are not cheap!

Choosing a hard disk deserves and should receive as much consideration as the selection of your computer. You should consider software, support, reliability, serviceability, and of course the initial cost.

Fortunately, there are a number of good choices available. Several major manufacturers of hard disks cater to the Apple II. Among these are Applied Engineering and Applied Ingenuity (who both make non-SCSI internal models), Chinook, CMS, AMR, Sider, Relax Technologies and Crate Technology. Drives are available in virtually any shape, size, speed and capacity.

Terminology

The first step in shopping for the right hard disk is to familiarize yourself with the terminology that is associated with hard disks. Before continuing, review the following definitions. Understanding the terminology will help you achieve a better understanding of hard drives in general.

SCSI: This is the abbreviation for 'Small Computer Systems Interface'. It is the most common type of communications port between Apple computers and hard drives. It is unique in the fact that it is standard among many devices and brands of computers (ie. CD ROMs, scanners, tape units and hard drives).

Average Access Time: This is the average amount of time it takes to read a block of information from the hard drive into the memory of the computer.

Seek Time: This is the average time it takes to move the hard drives read/write head across the disk to locate a requested track.

Platter: The flat circular media on which the data is stored.

Track: A circle of data on the magnetic medium.

Block: A segment of a track where data is stored.

Interleave: The interleave describes the method used to number the blocks on a hard drive. If a hard drive's interleave is described as 1:1 (one to one) then the blocks on every track on the drive are numbered consecutively (ie. 1,2,3,4,5...etc.). On most computers, however, there is a problem with numbering blocks consecutively. Every time a block is read in the computer needs a little time for processing the data it has just received. If the computer is too slow to do this work before the next block passes under the read/write head, it will have to wait until the next time the platter spins around. This makes disk access unnecessarily slow. With an interleave of 1:2 the blocks will be numbered by every second block (ie. 1,15,2,16,3,17...etc). By trying various interleaves you can fine-tune your hard drives performance so that consecutive blocks will appear right

(continued on page 19)

Quality Software

Tailor-Made For The Apple IIGS

Font Factory GS™
Font Factory GS is a "standard IIGS font" editor that can modify or create fonts for use with almost all Apple IIGS-specific programs, including word processing, desktop publishing and drawing programs.

Why Limit Your Choice?
Font Factory GS is great for automatically changing a font size or for smoothing the ragged edges of a large font. Design custom pictures or symbols. Use the drawing tools with the mouse and see the different font styles as you create each character. It's easy to create custom keyboard characters for math, science, and foreign languages.

Font Factory GS is supplied on a 3.5" disk and requires an Apple IIGS with 768K and one disk drive.

Suggested retail price only $39.95 (demo $6).

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GS owners have wanted a way to manage their files, folders and disks without having to quit their program and return to the "Finder". Now a New Desk Accessory called Disk Access makes these tasks easy to do while using another program!

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...and many other useful features

$49.95 (demo $6). Works with any GS/OS compatible software that supports NDA's.

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GraphicWriter III combines everything you need in one easy-to-use package!

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GraphicWriter III delivers all the power and speed you've wanted from a IIGS-specific program. And it requires only 512K!

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Q-Labs:
QUALITY COMPUTERS R & D DIVISION

Quality Computers would like to announce the divestiture of their software development branch into a new and separate company. Q-Labs will function as a research and development division to produce software and hardware for the Apple II line of computers. This split will serve to better define the role that Quality Computers plays in the Apple II market.

RepairWorks, EasyDrive and RAMUP are products that will fall into the domain of the new company. While Q-Labs will pick up the maintenance and development for new releases, Quality Computers will continue to sell these products as one of the retail outlets for Q-Labs. In addition to developing new software in-house Q-Labs will also be gathering and marketing software written by enthusiasts.

In addition to software development responsibilities, Q-Labs will also be developing OEM hardware. This will allow the new company to bring hardware solutions that already exist on other computer lines into the Apple II market.

ENHANCING — SYSTEMATICALLY

There are so many enhancements available for the Apple II computer these days it is getting harder for the user to choose which product to buy first. The order that you add these new devices to your computer can be very important if you are not going to buy them all at once. The productivity that you gain from one enhancement may not be what you expect unless you also have another. Because of this we have prioritized a list of several products by importance of interdependency.

High Priority — Memory

Almost all of the software being written today utilizes and sometimes demands large amounts of memory. It is not uncommon to find software packages for the IIGS that require over a megabyte of system RAM. If you couple this with new operating systems that require more and more memory as well as useful desk accessory programs, additional memory capacity becomes the highest priority for the Apple II owner.

Hard Drive

If you could point to the one thing that causes an efficiency bottleneck in the Apple II it would have to be the speed of storage devices. Not only will a hard drive save you time that you used to spend switching disks in the middle of a program, but it will also dramatically reduce the amount of time it takes to get the program into memory.

Once you've conqured disk storage and system memory you can consider pushing your computer to it's limits. Several devices are available now for speeding up the CPU in your computer. These devices will allow you to use the same software you have always used, but at much faster speeds. It is recommended that you get a hard-drive before an accelerator because speeding up the processor will not speed up the access to your 5.25" or 3.5" diskettes. It is frustrating to buy a speed enhancement only to find yourself still waiting for disk access.

3.5" Disk Drive

A 3.5" diskette drive is a dramatic improvement over the 5.25" drives and can be a very useful tool in backing up a hard-drive.

If you still looking for improved performance a second 3.5" disk drive will help. A second 3.5" drive is always nice to have, but rarely returns the amount of convenience it promises.

Stop hunting for hardware, softwa

Look Here First!

QUALITY COMPUTERS

DB MASTER

Those who use it know it's the best. DB Master Professional is the most powerful, yet easy to use data base manager for the Apple II. With DB Master Professional not only can you sort, select and tally, you can cross reference, calculate, create formatted reports, generate form letters, update other categories and files, and more. DB Master Professional speaks your language — simple commands for complex operations. $189.00

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Move your computer into the fast lane with an accelerator chip from Zip Technology. Choose your need for speed — 4 or 8 mhz. Easy to install, addresses all memory, compatible with all software and hardware. Need an upgrade? We'll give you $50 for your current accelerator with the purchase of an 8 mhz. Zip Chip. 4 mhz. - $139.00. 8 mhz. - $179.00. Coming this Fall! 8 mhz. Zip Chip for the IIgs - $249.00.

PROTERM

We've tried them all and none compare. Proterm combines almost every imaginable feature while keeping the program fast and easy to use. Whether you're a programmer, professional, or just starting out, there isn't a better communications program for you than Proterm. Features include scroll back buffer, 1 key macros, VT emulation, password protection, remote down loads, 2 modem transfer protocol, and more. $79.00

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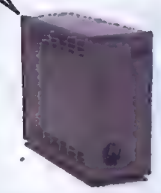


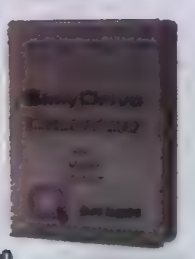
It's no secret. SCSI is the key. Apple's big plan for the Apple II is based on SCSI technology.

CHINOOK: Full SCSI compatibility, quiet operation, small in size, Apple SCSI interface card, 1 year warranty. Chinook has proven to be one of the most reliable units available. Works with Apple IIe, IIc, IIgs, and Mac compatible computers. EasyDrive recommended but not included. CT20 $599.00, CT40-$795, CT20C* $629.00

CMS: Fully SCSI compatible, the CMS series comes with their own interface for the Apple II or you can use Apple's interface, a good bet! Mac compatible. With CMS you can have an Apple II and a Mac share the same unit, simultaneously! 1 year warranty available. Comes in a variety of sizes. EasyDrive recommended but not included. 20 meg. - $629.00, 30 meg. - $719.00, 40 meg. - $769.00, 60 meg. - $799.00, 80 meg.+ - Call.

SIDER: D2 - $499.00, D4 - $645.00, D4T - $855, D9 - $1,465.00, C96 - $2,155.00.

EASYDRIVE: Designed to make hard-disks user-friendly for the beginner and professional. Set up custom menus, and launch programs at the touch of a key. Status graphs display disk space and optimization information. Includes a ProDOS beginners book that illustrates ProDOS and examples of hard-disk set-ups. $69.95.



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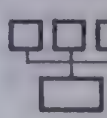

ReportWriter $45.00

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The Time Out series adds features to your Apple Works so smoothly that you'll think you're discovering new Apple Works commands.

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REPAIRWORKS: DON'T CRASH WITHOUT IT

How many times have you sat down to load your latest project into AppleWorks only to see the "Getting errors trying to read" message? If your answer is more than once, you might be surprised to find that there is a new product written especially to recover these unreadable files. RepairWorks 3.0 knows all of the internal formats for ADB and AWP files for AppleWorks 3.0 and prior. RepairWorks can surgically remove all of the offending data in those damaged files thus allowing AppleWorks to read in the data that is left. Wherever bad data is removed a "data missing" label is inserted so that you know exactly where information was lost.

AppleWorks files can become corrupted in many different ways. Sometimes it is due to worn-out diskettes, a small static charge, or a fingerprint smudge on the surface of the diskette. In cases such as this it is most likely that a large amount of the data in your AppleWorks file will remain intact, even though AppleWorks will refuse to load the file. In keeping with Murphy's law it is a sure bet that this damaged file will be the only copy of the file that you have. In cases like this RepairWorks can be a lifesaver by saving you hours of work in reconstructing the file from scratch.

RepairWorks, recently voted Incider editor's choice, is available from Quality Computers, NAUG and many other software retailers. Quality Computers also offers a special next-day delivery package... because when you need RepairWorks you need it bad!

, peripherals, and enhancements...

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Diversitune	55.00	All makes - most	14.95
Diversicopy	30.00		
Managing Your Money	99.00	HARDWARE:	
Quicken	34.00	Kensington System Saver IIe	59.00
Printshop	29.00	Kensington System Saver IIgs	69.00
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Copy II +	25.00	Thunderscan	175.00
WordPerfect GS	99.00	Laser 128 EX	449.00
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Publish It! 2.0	84.00	AI Ext. 80 Column	59.00
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AppleWorks GS	219.00	SMT No Slot Clock	44.00
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PROSEL 8 $39.00
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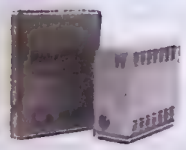

EASYDRIVE: The complete hard-disk management system for the Apple II. ProDOS 8, 16, GS/OS compatible, and menu-driven. Features include: quick launch, backup/restore, optimizer, and indexing. The treesurgeon utility puts you in control by displaying a map of the directories, the files, and the commands. You see your hard-disk in terms you can understand $69.95.

RAMUP: Load AppleWorks, Timeout Series Dictionaries, Proterm and all of your favorites onto your ramcard at once. RAMUP makes using a ramdisk a snap. Menu-driven RAMUP lets you reboot your system to work with unloadable applications like CPM, PASCAL, copy protected games, and then later return to the programs still intact on the ramcard. Features include: backup / restore, auto load, and more. Three years as the top-selling ram disk utility. $39.95.

REPAIRWORKS: In a perfect world a program like RepairWorks wouldn't be necessary. Unfortunately the world isn't perfect and for those who have peered tearfully into a monitor filled with the dying gasps of our precious work, it can almost seem cruel. But, don't despair! RepairWorks can soften the blow of cruel fate when it involves your AppleWorks files. RepairWorks will examine your files and surgically remove the offending problems, reducing or eliminating the need to recreate your work. Available on 3.5 and 5¼ disks. $39.95.

Repair Damaged Appleworks Files

New 3.5 Drive for GS !!

If you've been looking for an alternate to the over priced 3.5 drive that Apple offers for the GS — you can get out your credit card — AMR has just released a 3.5 drive that does it. Complete compatibility with full daisy chain support — priced to move @ $189. Incredible in stock ready for overnight delivery!

Service after the Sale

After-sale support is becoming an increasingly important part of the mail-order business in the Apple II market. Price is no longer the only important factor involved in the purchase of high-tech equipment. Quality Computers offers support in several different ways.

Our staff of trained technicians will answer your questions about purchased products and help you to debug any problems you might have installing or using a piece of equipment. Customers have access to our dedicated technical support phone line. This special phone line will become a toll-free number in October. Technical support is also available via the Genie, CompuServe, AppleLink Personal and MCI Mail telecommunications services. This will allow customers to leave messages and questions 24 hours a day.

In addition Quality Computers offers a price guarantee. If you find a lower price for the same item simply send in the advertisement with the price within 30 days of purchase and Quality will refund the difference.

Should your product experience failure within the warrantee period, we can often fix it in-house in a much shorter time than it would take if you had to send it back to the manufacturer.

Fast, inexpensive and courteous delivery is not the only factor when choosing a mail-order company. Make sure you are dealing with a company that will treat you well after the sale, as well as before.

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RAMWORKS III		RAMCHARGER	133
256K	149	RAMKEEPER	139
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256K	139	PARALLEL PRO	79
512K	189	AE 5¼	119
1 meg	289	POWER SUPPLY	59
1.5 meg	389	READY LINK	69
GS RAM +		TIMEMASTER H.O	69
1 meg	249	EXTENDED 80 COL	99
2 meg	369	Z80	119
3 meg	489	PHASOR	139
RAMWORKS EXP.		VIEWMASTER	124
1 meg	279	COLORLINK	99
2 meg	379	CONSERVER	88
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1 meg	279	VULCAN 40	605
2 meg	399		
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RETURNS: Defective software will be replaced immediately with the same item. Defective hardware will be replaced or repaired at our own discretion. Call customer service at 313-331-1120 to obtain a return authorization number before returning goods. Product purchase in error subject to 15% restocking fee.

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TimeOut ReportWriter

New Report Generator from Beagle Bros

by Dan Verkade,
author of ReportWriter

TimeOut ReportWriter is a relational report generator that works right inside AppleWorks. Thanks to TimeOut, AppleWorks users can turn AppleWorks' limited database capabilities into a powerful business tool. You can use ReportWriter immediately with your AppleWorks files. Just add the files you want to use to the AppleWorks desktop and ReportWriter does the rest.

ReportWriter offers flexible report layout. Using its built-in editor, you can place data fields and text anywhere you like on the report page, using horizontal scrolling for reports up to 240 columns wide. This freedom lets you use your computer to fill in existing forms.

Reports can include titles, headers, and footers. Unlike the two-line standard headers AppleWorks permits, you can define headers and footers any way you like. One-page title and closing sections can be used to give your report a professional look, and an optional subtotal section at the end of each report page lets you summarize information about a group of related records.

Relational Capabilities

One of ReportWriter's strongest features is the ability to combine information from two or more files into the same report. The files can be database, spreadsheet, or even word processor files. ReportWriter's relational capabilities allow you to combine up to 254 data base categories or spreadsheet columns in a single report—using up to eleven different AppleWorks files. That gives you the freedom to group information into separate files.

For example, a teacher might have a file of general information: student names, Social Security numbers, addresses, etc. A second file could contain class and schedule information, and a separate spreadsheet could have homework grades. Using ReportWriter, they could pick and choose information from all three files for one report. Businesses can now have files of customer information, orders, and inventory, and generate invoices or statements based on the orders.

Combining "boilerplate" text from word processor files with the ability to do calculations and date math lets teachers do automatic progress reports, changing the words depending on the progress of each student. Businesses can generate re-order letters based on customer or product. Notices for overdue accounts can contain stronger and stronger wording as the account gets later and later.

Anatomy of a Report

Reports may contain up to seven sections. They are: Title, Header, Body, Subtotal, Closing, Footer, and Work area. Of these seven, only the body is required. Other sections are optional.

Title: Appears once, at the very beginning of a report.

Header: For information about the contents of the report. Printed at the top of every page.

Report Body: Contains the actual contents of a report. For a name and address list, the names and addresses would go into the body. File retrievals and all of ReportWriter's calculation functions are available in the body.

Subtotal: Calculated functions are available for summarizing information for related groups of records.

Closing: For summarizing information from the report. Like the title; it can be printed on a separate page.

Footer: Similar to headers, these print at the bottom of each page. Calculated functions can be used for summaries in footers.

Work Area: Doesn't print - used for intermediate calculations that you don't want printed, and for comments.

Sample Report

Figure 1 shows an example of a ReportWriter layout for an invoice, and the printed report. The section labels on the right mark the last line of each section. Not all sections are used in this example. The asterisks indicate defined fields, which can be data retrieved from the master file, lookup files, calculations, and keyboard entries.

Built-In Functions

The program has a wide variety of built-in functions to operate on text or numbers. Any of the 254 ReportWriter fields can be calculated fields. Numbers can be handled as numbers or text. You can do totals, subtotals, averages, counts, minimums and maximums. There are rounding functions so numbers of varying precision add up correctly, many string commands, "IF" statements for conditional logic, and lookup and match functions.

ReportWriter will convert dates to a Julian format to calculate the number of days between any two dates or determine a future date. It can print reports with interest calculated up-to-date for aging statements, dunning letters, and projections.

(continued on page 32)

```
File: Invoice                    EDITOR                    Escape: Main Menu
_____________________________________________________________________________

                                 Dan's Data Products
                                  1234 Fifth Street
                                  San Diego, CA 92000

Ship to: **********************
         **********************
         *************** **  *****

Number  Description              Qty   Price     Extension          ← Header
******  ************************ ***   *******   *********          ← Body
                                                 *
                                 Subtotal        *********
                                 Tax             *********
Please pay this amount           Total           *********          ← Subtotal

                        Thank you for your order!                   ← Footer

* * * * * *                                                        ← Work area
_____________________________________________________________________________

Type entry or use A commands          Row:  1   Col:  1     A-? for Help
```

Three files are used in this report:

- Customer Orders, the master file, containing customer numbers, stock numbers, and quantities of products ordered.
- Customers, for looking up customer names and addresses.
- Inventory, for looking up product names, prices, and availability.

Lookups in the Customers file are based on the customer number in the Customer Orders file. Likewise, stock numbers are used for looking up product descriptions, prices, and current stock-on-hand from the Inventory file.

Here's a sample invoice generated using the layout shown above:

```
                                 Dan's Data Products
                                  1234 Fifth Street
                                  San Diego, CA 92000

Ship to: ABC Company
         123 Street One
         City One        CA  33333

Number  Description              Qty     Price      Extension
  A100  Apple IIGS CPU             1   1000.00       $1000.00
  A200  3 1/2" disk drive          2    250.00        $500.00

                                 Subtotal              $1500.00
                                 Tax                     $90.00
Please pay this amount           Total                 $1590.00

                        Thank you for your order!
```

Figure 1.

The Invoicer with Accounts Receivable

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RepairWorks: Don't Loose Data Without It!

Gary R. Morrison, PhD

Most of us would agree that the microcomputer is one of man's greatest inventions — we often wonder how we managed without them. Unfortunately, these good feelings and our faith in the ability of the computer to save time come crashing down when a file or disk is damaged. These problems are most likely to occur either the day after we destroyed the last printout or the day before a backup is scheduled.

Fortunately for AppleWorks users, there is a means of rescuing damaged files. Let's look at the kinds of problems that can occur with your disks, and how a program called "RepairWorks" can solve some of them. We'll consider two types of problems: damaged directories and damaged data files.

Damaged Directories

AppleWorks uses the ProDOS operating system to save and load files from all types of disks. ProDOS keeps track of the locations of these files with a "directory". You can see the directory when you catalog a disk or select a file to load to the desktop. The problem occurs when this directory is damaged. For example, if you ripped up your phone book (don't laugh, my dog did it one time) so that the phone numbers were separated from the names, your phone book would be useless. You would no longer be able to find the appropriate phone number. Similarly, when the directory on your disk is damaged, ProDOS has no way of finding where the files are stored.

Repairing damaged directories is not an easy task. The National AppleWorks User's Group maintains a list of individuals who will repair such disks. Or, if you are quite knowledgeable about ProDOS, you can use Quality Software's "Bag of Tricks 2" or ProSel's "Mr. Fixit" to make some repairs.

To prevent damage to your disk directories, never remove a disk, turn the computer off or press the Reset key when the disk drive light is on, and make sure you are using the latest version of ProDOS. Several users have reported that the versions of ProDOS before 1.4 were responsible for damaging the disk directory. You can tell which version of ProDOS you have when you boot your computer, as it is prominently displayed on the screen. If you have version 1.3 or earlier, you should obtain an update from your dealer and copy the new PRODOS file to your AppleWorks startup disk.

Damaged Data Files

If you have a damaged AppleWorks data file, it will produce the message: "Getting errors trying to read" when you attempt to load it onto the desktop. RepairWorks can help you recover word processing and data base files that can't be loaded.

I have found two types of problems that cause this error. First is a damaged block of data on the disk. A "block" is an area on the disk that ProDOS uses to store 512 characters ("bytes") of information. A damaged block may be the result of poor disk quality, extended use of the disk, exposure to fingerprints or extreme heat or pressure, fluctuations in the disk drive speed, or electrical problems. The data in a bad block is lost and cannot be recovered; however, the data before and after the bad block is still useable and can be recovered by RepairWorks.

Then there is corrupted data or "misinformation" on the disk. Occasionally, the wrong information is saved to your disk as a result of a bad RAM chip, disk speed changes, or power fluctuations. When AppleWorks tries to use the file, it finds the corrupted information and refuses to load the file.

RepairWorks can recover both types of damaged files, but it will not work on a disk with a damaged directory. Next I will describe how to recover damaged files with RepairWorks.

Recovering Word Processor Files

RepairWorks has two options for recovering word processing files: the files can either be recovered as new word processing documents or as ASCII text files. Normally, you would recover a damaged word processing file as a word processing file that can be loaded directly into AppleWorks. However, if your file is badly damaged, you may need to recover it first as an ASCII text file,

(continued on page 32)

Looking for a Hard Disk?

(continued from page 15)

under the drive head as they are needed.

High-Level Format: On a hard drive there are two kinds of formats. Since there are so many more blocks and tracks on a hard drive a REAL format (like when you format a 5.25" or 3.5" drive) can take a long time. Since this can sometimes be frustrating and rarely really needs to be done on a hard drive, designers came up with what is called a 'high-level' format. Actually a high-level format doesn't do any more than erase the data in the root directory and make it look like all of the space on the drive is free. No real format is performed.

Low-Level Format: This is where the drive is actually wiped clean and tracks and blocks are reconstructed on the media. It can take a lot longer than formatting a 5.25" or 3.5" drive, since there are many more blocks on a hard drive. To change the interleave on a hard drive, you will have to do a low-level format.

Fragmentation: When you save a file to any device it is saved in blocks. These blocks are filled in order of availability. As you delete and add files to a disk the contents of a file may actually be stored in several different locations on the hard drive. Soon the file can be scattered quite randomly, causing the drive to search all over just to find the data for this one file. This is referred to as fragmentation. There is no danger in this phenomenon, but fragmented files generally take longer to load.

Contiguous: A file that is stored in sequential locations (or un-fragmented locations) on a hard drive is said to be contiguous.

MTBF: "Mean Time Between Failure". This is an average measure of the time between unit failures. This number is used to rate a drive's reliability. Generally, the higher the number the better.

The SCSI Issue

There is a lot of controversy over the SCSI interface. Some people swear by it and some suggest that you don't need it. Although the SCSI interface is an international standard, there are several brands of SCSI cards to choose from on the Apple market, and not all of them are created equal! Apple makes their interfaces proprietary so that it is hard for third party developers to duplicate them without violating their copyright.

When Apple designs new operating system features you can be sure they will make them compatible with the Apple card. Unfortunately, third-party SCSI interface developers have to play catch-up with these features by writing special drivers or ROMS for compatibility. With the recent introduction of new operating systems, SCSI and compatibility to the Apple standard has become important.

It is important to keep in mind that if you are using a non-Apple SCSI interface, your ability to stay compatible with new operating systems will depend on the manufacturer's commitment to their hard drive interface.

In summary the advantages to Apple SCSI are:

- Apple has chosen SCSI as the standard interface for hard disks.
- Compatibility with current and future operating systems.
- The ability to daisy chain more drives and perhaps new devices in the future.
- The ability to upgrade to a different computer.

The disadvantage of SCSI is that it costs more - the initial investment in a SCSI drive is typically $100 more than a non-SCSI drive.

Choosing the Right Size

Choosing the right size is important. 20 megabytes of memory may seem like an overwhelming amount at first. After all, it is equivalent to 140 5.25" diskettes or 25 3.5" disks. However, with the new graphics oriented software being released you will find that even 20 megs may be quite limiting. For example, some paint programs produce files which may be over 100K in size. It wouldn't take many such files before you found yourself running out of room.

Ask about the difference in price between a 20 meg hard disk and a 40 meg drive. You'll find it is nowhere near double the cost. With most manufacturers it is usually only a 20% increase. Upgrading the capacity of hard disk is not as easy as upgrading the capacity of a ramcard. You can't just pop additional capacity into the unit that you buy today. A good rule of thumb is that GS owners should not consider anything less than a 40 megabyte drive.

Choosing the Right Source

Make sure you are comfortable with the dealer you are buying your hard drive from. This may be the one case where price should not be the ultimate consideration. Serviceability and support are also key factors with hard drives. Although they are very reliable, they are after all mechanical devices, and can fail occasionally. A hard drive will probably be the most-used piece of equipment you have (aside from the CPU, of course). Imagine the difficulty of getting along without it should a failure occur.

Make sure the dealer you buy your hard disk from offers technical assistance, and will back you up should your hard drive fail. Ask important questions like, "Do you have your own technical staff?", "Can I call you if I have a problem setting it up?", "Who do I take it to if the drive stops working?", or "Is there a trial period to make sure I am happy with my purchase?".

Choosing the Right Software

Don't wait until you get frustrated setting up your hard disk to go looking for good hard disk management software. Buy it with your hard disk. Most hard drives come with enough software to get you started. Installing, locating, organizing, and running programs can be tricky, and you'll find you may want to invest a little more money to get a hard disk manager that will help you keep your drive running smoothly. Both ProSel and EasyDrive are excellent programs that will help you do just that.

[Editor's Note: Keep in mind that some hard disks are set up for ProDOS and GS/OS only, while others can run other operating systems, including DOS 3.3, Pascal and CP/M. If you only use ProDOS or GS/OS, drives that support the other systems may waste some space, even if you only use ProDOS. On the other hand, if you do use other operating systems, you certainly want your new hard disk to support them.]

Setting Up a Hard Drive for the Long Run

When your hard drive does arrive the best advice is to play with it — set aside a few hours and tinker. Then, when you think you have things under control, plan out your strategy. What programs are you going to keep on your hard disk? How are you going to label your program and data directories? How often and what software are you going to use to back up with? Make up rules for naming directories and files. A good book that explains the basics of ProDOS and hard disk set-up is "Beginning with ProDOS"— $9.95, written by Gary Morrison and published by Quality Computers; (800) 443-6697.

There is no doubt about it, there is a lot to decide. Determine what is important to you: speed, compatibility, expansion, ease of use, service, and cost. Gather the information on the drives that interest you and make an educated decision. If you have a friend who has a hard drive, ask for help and advice in selecting the drive that is right for you.

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IIGS Replacement Batteries

If you have an Apple IIGS, hopefully you haven't found out about its battery yet. The battery that keeps the GS's internal clock/calendar going and maintains your Control Panel settings when the computer is turned off or unplugged falls under the category of "no user servicable parts inside". Or at least it did until now.

If you *have* had to have your battery replaced, you probably paid $40 to $50 or more to have the job done by a local Apple dealer's service department. The reason for the high cost is that the battery is soldered to the computer's motherboard (the main circuit board of the computer). To replace it, the old battery must be un-soldered, and the new one inserted in its place. While that should not take more than five minutes or so, most dealer's charge a one-hour minimum on all repairs.

Even if you know how to solder, you might not want to tackle the job yourself, since the type of battery used in the computer contains a flammable lithium alloy, and the fumes of the electrolyte are toxic. (The warning label on the replacement batteries says "Warning: risk of fire or explosion. Do not recharge, force open, heat or dispose of in fire.")

Now, however, thanks to a small company called Nite Owl Productions, there's a quick, easy way to replace the battery yourself for less than $10. Their "Slide-On" replacement batteries ($9.95 each, less in quantities of 10 or more) can be installed by simply snipping the leads of the old battery, sliding the curled leads of the Slide-On replacement battery over the old leads, and crimping them lightly to hold them in place.

Nite Owl suggests that all IIGS owners keep a replacement battery on hand, since there's nothing to warn you that your current battery is about to go!

For more information, contact Nite Owl Productions, 5734 Lamar Avenue, Mission, KS 66202.

SCSI Hard Disk Accelerator

Ohio Kache Systems has announced the "Fast-Kache" SCSI hard disk controller card. The Fast-Kache is similar to Ohio's "Multi-Kache" card, but with a SCSI interface in place of support for 3.5" and 5.25" floppy disk drives. Fast-Kache and Multi-Kache are both disk interface cards that dramatically improve disk access and reduce wear and tear on your drives and disks. They achieve this by using two advanced techniques called DMA (direct memory access) and RAM caching.

Fast-Kache transfers data from a hard disk into its RAM cache at over 1.4 megabytes per second. Transfers from cache to system memory run at 1 megabyte per second on an Apple IIGS, and at just under a megabyte per second on an Apple IIe.

The Fast-Kache board is compatible with the Apple IIe and IIGS, and will work with most SCSI hard drives, including First Class Peripherals' Sider drives, Apple, Chinook and CMS SCSI drives, and most other brand name or home-build SCSI drives. Add-on boards will also be available to use the Fast-Kache with Applied Engineering Vulcan drives and Applied Ingenuity Inner Drives.

Fast-Kache will be available in 3rd quarter, 1989, with a suggested retail price of $250 with 256K of cache RAM, or $375 with a full megabyte cache. The "piggy-back" board that lets Fast-Kache work with Vulcan or Inner Drive hard disks will retail for $79.95.

For further information, contact Ohio Kache Systems, 4126 Little York Rd, Suite E, Dayton, OH 45414.

New Laser Compatible to Ship Soon

Laser Computer, Inc. has announced that their "highly anticipated" Laser 128EX/2 computer has received FCC certification and will start to ship in late September. This latest addition to the Laser 128 series of Apple II compatible computers will be demonstrated at the San Francisco AppleFest, September 22-24.

The Laser 128EX/2 shares many of the same features that has made the Laser 128 and Laser 128EX so successful, including offering more features for less money than a similarly equipped Apple computer. Built-in features unique to the Laser 128EX/2 include a ProDOS compatible real time clock, a combination MIDI/modem port, the choice of a 5 1/4" or 3 1/2" built-in disk drive, and Apple IIGS compatible daisy chain capability.

The Laser 128EX/2 with a 5 1/4" drive will have a suggested retail price of $589.95, and the 128 EX/2 with an 800K 3.5" drive will have a suggested retail price of $639.95.

For more information, contact Laser Computer, Inc., 550 East Main Street, Lake Zurich, Il 60047-2576.

Hard Disk Repairs & Data Recovery

The good news about hard disks is that they hold lots and lots of data. The bad news is that it's easy to become lazy about backing up your hard disk onto floppies or a tape backup system. The *really* bad news is that hard disks, like floppy diskettes, are fallible—and they always fail when you haven't backed them up recently.

If you have problems with a Sider hard disk, there's a new service in Chicago that will not only repair your drive, they'll take whatever steps are necessary to recover as much of your data as possible.

B&D Computer Repair can repair most out-of-warranty Sider hard drives, as well as drives sold under the Datamac and Trustor brand names. B&D's Larry Beyer says that data recovery is possible with many failed drives, depending, of course, on the nature of the problem.

Units that are not repairable can be traded-in for credit towards a re-built hard disk or a brand new First Class Peripherals Sider drive.

B&D also offers hard disk software, ROM updates, cables and misc. parts.

For more information, contact Lawrence Beyer, B&D Computer Repair, 6115 S. Massasoit, Chicago, IL 60638. Phone (312) 735-9010.

New SCSI Hard Disk Utilities

Chinook Technology, manufacturers of hard disks for the Apple IIe, IIGS and IIc, has announced the availability of the *Chinook SCSI Utilities*, a powerful set of utilities for use with SCSI hard disks and the Apple II SCSI interface card. These utilities provide such functions as disk verification, true SCSI bad block remapping, creation of partitions, and ProDOS volume initialization. Chinook says that "the program uses a filecard interface and is user friendly".

The Chinook SCSI Utilities are compatible with the Apple II+, IIe (enhanced or un-enhanced), and IIGS; the Apple SCSI interface card ("rev C" required), and "imbedded" SCSI hard drives that are compatible with that card.

Chinook says that their utilities are better than the HDSC Utilities that are supplied with Apple's SCSI card. The Chinook utilities allow flexible partitioning, with up to 7 partitions per drive. They can do both low level and high level (ProDOS) formatting, with user-selectable interleave, so you can set the interleave factor to the ideal setting for your combination of computer, hard drive, accelerator, etc.

The utilities can also reassign bad blocks so that they will be "hidden" from both the user and the operating system. Chinook says that theirs is the only program presently available for Apple SCSI drives that can "hide" bad blocks that way.

The Chinook SCSI Utilities are included with every Chinook SCSI drive. They are also available as a separate product directly from Chinook.

For further information, contact Chinook Technology, Inc., 1811 Lefthand Circle, Suite B, Longmont, CO 80501; phone (303) 678-5544.

Laser Computer's Laser 128EX/2

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Low-Cost Hard Disks

For years, Apple II users have been complaining about the high cost of hard disks. Well, how about a 10 megabyte drive, complete with controller card, for just $299! True, 10 megabytes isn't much by today's standards, and you probably wouldn't want one to do desktop publishing or other memory hungry graphic applications on your Apple IIGS. But if you're still swapping 5 1/4" diskettes for AppleWorks or DB Master on your old Apple IIe or Laser 128, this sounds like a great buy. It's Applied Ingenuity's "Falcon" hard disk.

If you need more capacity, but still want to keep your costs down, Applied Ingenuity also offers a 20 megabyte "OverDrive" external hard disk for $499.

For more information, contact Applied Ingenuity, Inc., 14922M Ramona Blvd., Baldwin Park, CA 91706, or phone (800) 346-0811. Inside California, call (818) 960-1485.

Small Business Templates for Publish It!2

C.E. Field Enterprises has announced the availability of Business Pack 1, a collection of easy-to-use templates for Timeworks' popular desktop publishing program, Publish It!2.

Business Pack 1 includes 16 files covering five popular small business applications: name badges, business cards, coupons, gift certificates and postcards. Besides ready-to-customize templates, the disk contains completed, view-and-print samples, as well as disk-based documentation. Only minimal experience with Publish It!2 is required for successful use of these templates. Business Pack 1 is available from C.E. Field Enterprises in either 3.5" or 5.25" disk format for $19.95, plus $3.00 shipping/handling.

C.E. Field Enterprises also markets single-project Publish It!2 disks containing templates, tutorials, clip art, fonts, and ready-to-use stationery forms. The company is owned and managed by Cynthia E. Field, Contributing Editor and desktop publishing columnist for *inCider* magazine.

For more information, contact Cynthia E. Field, C.E. Field Enterprises, 60 Border Drive, Wakefield, RI, 02879-3802.

"Zia" 3.5" and 5-1/4" Floppy Disk Drives

Silicon Shack, of Albuquerque, New Mexico is producing Apple compatible 3.5" and 5-1/4" disk drives that are fully "daisy-chainable", just like Apple-brand drives. These drives are fully smart-port compatible, so they can plug directly into an Apple IIGS, an Apple IIc+, or an Apple IIc with the newer motherboard, and then daisy-chain to other smart-port compatible drives. They are also compatible with the Laser 128 computers.

In an Apple IIe, either Zia drive can be used with Central Point Software's "Universal Disk Controller". The 5 1/4" drive can also be used with other controller cards, although a special cable may be required, and you may lose the daisy-chain capability, depending on which interface card you use.

The suggested retail price for the 3.5", 800K Zia drive is $225. The 5-1/4" drive retails for $120.

For more information, contact Silicon Shack, 3900 Eubank NE, Suite 9B, Albuquerque, NM, 87111.

AppleWorks Programmers' Association

An "AppleWorks Programmers' Association" has been formed for programmers, developers, and others interested in producing or supplying "classic" AppleWorks-related software, products and services. Areas of interest to the group include AppleWorks templates and "patches", TimeOut UltraMacros programs and TimeOut application software, TaskMaster programs, and other programs that work within AppleWorks or with AppleWorks data.

The APA hopes to foster cooperation and communication among it members, and to act as a clearing house for technical information, ideas, joint marketing ventures, etc.

Rather than publish a regular newsletter, the APA will produce "periodic and timely bulletins" that will be distributed both electronically and through normal mail. The group is also setting up a 24-hour electronic bulletin board system (BBS).

There is a one-time $15 registration fee to join the group, plus a quarterly fee of $10.

For further information, write to the AppleWorks Programmers' Association, 6531 Lexington Ave., Los Angeles, CA 90038-1451. Or contact Dave Gair on CompuServe (71260,2752), GEnie (DGAIR) or AppleLink PE (DGAIR).

Access DB Master Files From AppleSoft Programs

For you frustrated programmers who've been itching to write your own DB Master applications, here's your chance - and there's no new language to learn! Stone Edge Technologies, Inc., publishers of DB Master and DB Master *Professional*, have announced the introduction of the DB Master Basic Programmer's Pak. Just include a few lines in your Applesoft Basic program to load the Basic Programmer's Pak's binary files, and your program can find, add, edit and delete DB Master records.

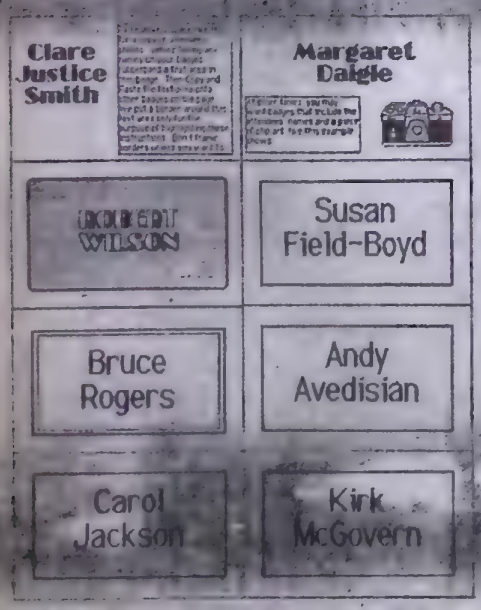
The Basic Programmer's Pak works with existing DB Master files - it cannot create it own files. It runs under ProDOS 8, allows space for over 25K of Basic code and variables, and can open more than one DB Master file at a time. All communication between your Basic code and the Programmer's Pak is handled through a few simple Basic variables and a list of "ampersand" calls. There are calls to open and close files, read a specific record (a "primary key" search), read the next or previous record, and to write and delete records.

Stone Edge has also announced a DB Master Developer's Pak for those who want to develop custom applications based on DB Master that include the normal DB Master screen displays, report generator, etc. The Developer's Pak is scheduled for release later this Fall.

The DB Master Basic Programmer's Pak will be available in October. The price will be $129, or $95 if you have an annual tech support and product maintenance contract for DB Master.

Order directly from Stone Edge Technologies, Inc., P.O. Box 3200, Maple Glen, PA 19002, or phone (215) 641-1825.

Silicon Shack's 5-1/4" Floppy Disk Drive



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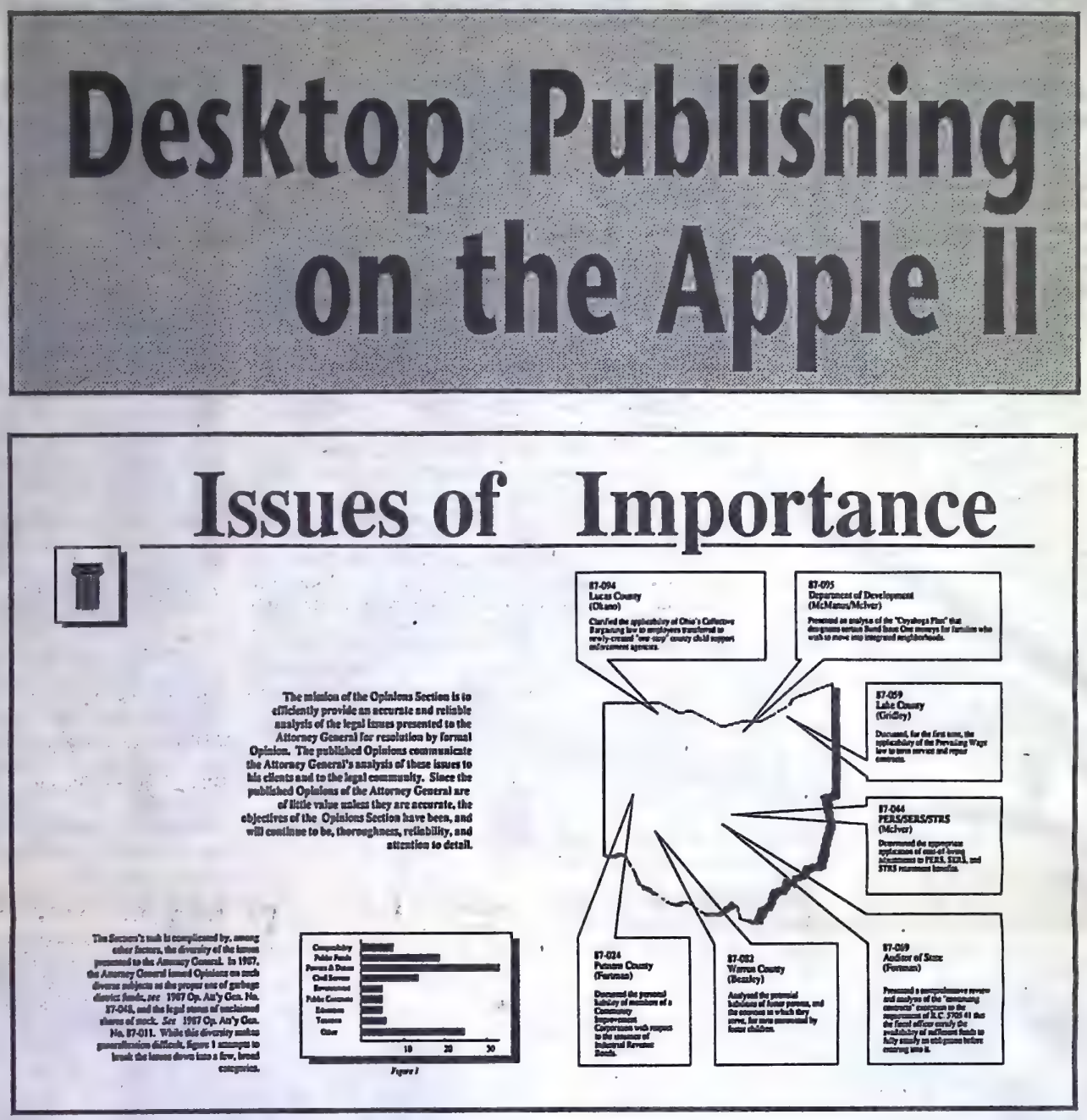
Call For Latest Prices

Desktop Publishing on the Apple II

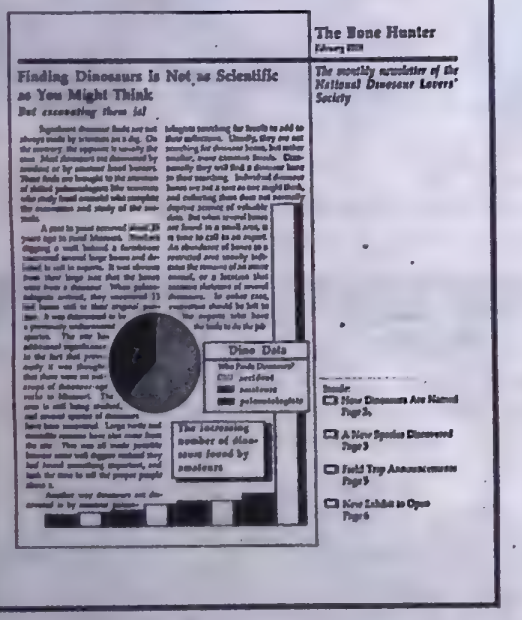
Desktop publishing aficionados say that the *only* computer for serious desktop publishing is a _____ (fill in the blank with your choice of Macintosh or OS/2 computer), or maybe a _____ (fill in the blank with the other choice), but certainly not an Apple II! Are they right or wrong? Is the Apple II, or the IIGS, a good computer for desktop publishing? Does the software match up to programs available for the Macintosh and PC's? Or are our favorite computers only good for classroom newsletters and the like?

To find out, we asked the publishers of leading Apple II DTP programs to "show us their stuff", and we've chosen the best of the lot to include here. Most of them were printed on laser printers; remember, we're looking for the serious stuff here. Two of the samples (from AppleWorks GS and Medley) required a IIGS; the others (GeoPublish and Springboard Publisher) will also work on a 128K IIe or a IIc.

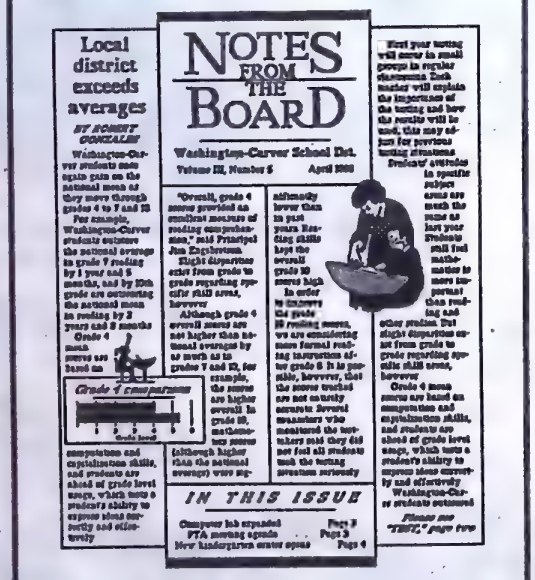
In future issues of "II at Work", we will compare these and other Apple II DTP programs to those for the Mac and PC. Meanwhile, we'd like to know what Apple II users think — does your 'II cut it for desktop publishing? What kind of experiences have you had? Are you using a standard dot-matrix printer, or have you graduated to Laser or ink-jet technology, and if so, how's it working out? Write to "II at Work" and let us know. Better yet, send us a sample that you're particularly proud of — maybe we'll include it in a future issue!



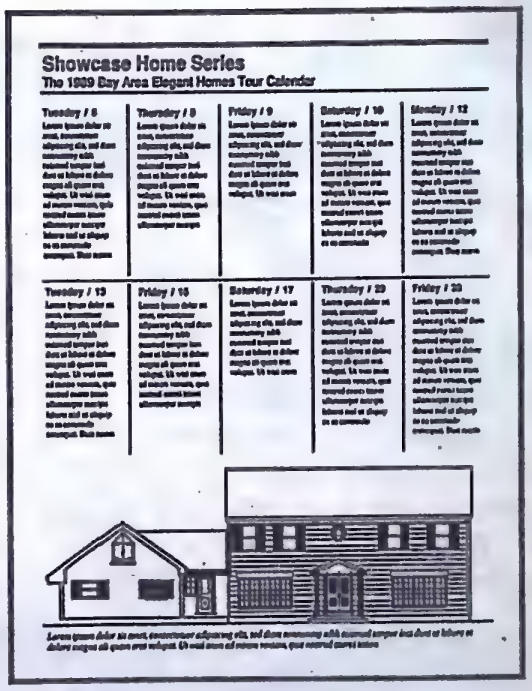
Created with GeoPublish



Created with Medley



Created with Springboard Publisher



Created with AppleWorks GS

HyperProductivity on the Apple IIGS

by David G. Sparks

[You've probably heard of something called "hypermedia" or about HyperCard, Apple's hypermedia program for the Macintosh. You may even know about HyperStudio, a hypermedia program for the Apple IIGS. But what can HyperStudio do for a business like yours? Read on—you may be surprised! —ed.]

Since the cave man painted animals on a grotto wall, the way to really get your point across in a presentation has been to draw a picture, make noise, dance if you have to, but involve every channel to the prospect's brain as much as you can. That, and KISS (Keep It Simple, Salesman), are two of the essential elements to increasing sales productivity.

This article will suggest some new ways to do both at the same time, with the Apple IIGS and HyperStudio, the new hypermedia product from Roger Wagner Publishing. With its superior graphics and sound, the GS should be an ideal presentation platform. What's been missing is a simple way for a non-technical person to put it through its paces. HyperStudio may be just what the doctor ordered.

What is Hypermedia?

The concept of hypermedia is the ultimate flip chart. I've spent many hours preparing easel talks with a big pad of paper and lots of color pens. My better ones have little tabs on the edges of some pages, so I can flip instantly to different sections, depending upon the audience and the questions I get, or just to change the order of presentation. That's a crude form of hypermedia. On a GS with HyperStudio, it's a breeze to do that. You can also make it talk, play music, animate your graphics, play a video segment, and more. It's almost as easy to do as it is to say. If you can operate a stereo set, you can develop a HyperStudio-based presentation.

The real power of HyperStudio comes from the almost effortless blending of sight and sound, by a non-technical person, into a presentation that puts the *prospect* in the driver's seat. There may be no better way to lower the barriers to communication than to make the one on the receiving end responsible for the message getting through!

For the client on the receiving end of the information, it is even easier. Put a touch screen over the monitor, and let them just touch what they want to see. Literally and figuratively they will direct the flow of the presentation by touching buttons on the screen. They won't be able to resist.

To give you some ideas, we'll look at three different sales professionals: a Realtor, a securities broker, and a surgeon. Yes, all of these have some selling to do, and they can all benefit from automating the presentation while at the same time involving the customer more closely. The scenarios are all drawn from real life. People are doing these things now, but without hypermedia; all I am doing is projecting current solutions one step into the future.

Hardware Requirements

First let's talk about the hardware you will need to create presentations with HyperStudio. This is some personal preference leaking through, but it's based on a few months' practical experience. You'll need a GS with at least 1 megabyte of RAM, and System Disk 5.0 or later. You'll want the GS color monitor. Go ahead and put in a hard disk, with at least 20 megabytes

Then give strong thought to some kind of video frame capture/digitizer hardware, an Apple Video Overlay card, and either a Pioneer laser disk player (model 2200, 4200, or 8000), or one of the new computer-controlled video tape machines (such as the model from Selectra, Inc.). A laserdisc or VCR will give you random-access to massive amounts of video material. You might also look into using the Edmark TouchWindow.

HyperStudio and the Apple IIGS have the power to increase your sales productivity, at a fraction of the cost of competitive systems. The entire setup: the Apple IIGS, plus the Video Overlay Card, TouchWindow, and LaserDisc player, can be put together for around $4,000. This compares to $10,000 to $15,000 for video disc, color video overlay and touchscreen capability on the Macintosh.

Now, let's see what you can do with all of that hardware....

Selling Houses Without A Lot Of Driving

Our Realtor is an enterprising lady. She wants to differentiate herself by not leading with the thick, black-and-white, multiple-listing book. So she uses her own camcorder and a digitizer card to capture blown-up map segments of the parts of town she specializes in. These become backgrounds for the first half-dozen "cards" of her own listing "stack". (A "stack" is the data that HyperStudio uses to perform a presentation. Think of it as a stack of graphics screens with magical properties.)

She places invisible "buttons" over sections of the maps, so a person touching a particular district, neighborhood, or even block is immediately switched to a closer-up map of the chosen area. At some level of detail, she links to a card listing the properties available in that part of town, but only those properties she has chosen to concentrate on.

A prospect touches the broad map of the city, zooms in to a neighborhood, indicates single-family houses in a price range, then sees a screen showing four candidates. Touching any one of them zooms it to full-screen. And now there are several buttons to choose: floor plan, amenities, schools, churches, emergency services, shopping, commute times, taxes, maintenance history, room views, perhaps a tape-recorded walk-through. At any point in the process, the client can step back to choose another property, or another area on one of the maps. They are never stuck viewing further details of a house that no longer interests them.

With a camcorder and the right tape deck, our broker can prepare all of this in living color, herself! She can keep it updated herself! She can expand or contract the presentation on any or all houses as much as she likes. Of course, there is always a trade-off between time spent preparing and time spent selling. But the point is that our broker gets to decide what is the right blend for her.

Her productivity goes up for at least three reasons: 1) Prospects can look closely at a lot of likely properties without being driven all over town; 2) Prospects will have something sales-oriented to study in the event she is late arriving for an appointment; 3) The prospects are likely to study the proposed houses much more closely, and with more interest, than they would a multiple listing page. Finally, the fact that she has such a service and other brokers don't helps set her apart, which was part of her original objective.

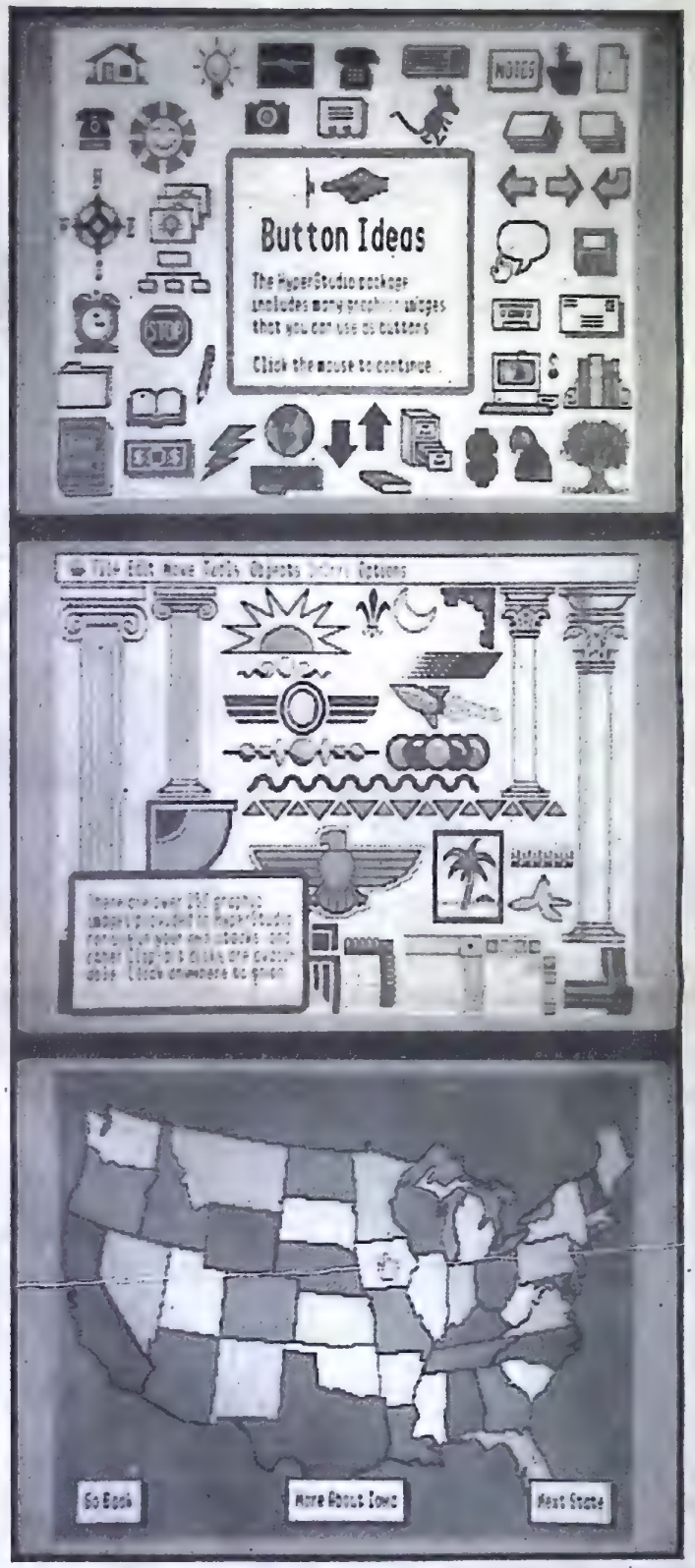
Securities That Sell Themselves

The stockbroker in our story is one of today's full-service financial consultants. He is up on the latest in the stock market, of course, and his company has a good inventory of corporate and municipal bonds. In the good old days that was about all a broker needed. But times have changed, and our subject wants to stay ahead of the pack by any (legal) means.

He knows that service is the key to success these days. Service before, during, and after the sale. Service in more than one area of his clients' financial lives. Constant attention to service. So he has computerized his office. His system tracks his use of time, his prospecting and sales follow-up calling, his client communication, even his appointments. His word processor software stands ever-ready to dash off the appropriate, pre-approved, personalized letter to someone.

To be honest, his marketing activities take so much of his time that he has become frustrated with the time it takes to explain certain worthwhile investment products to some of his clients on a face-to-face basis. As with every productivity decision he has made along the way, he knows if he can find a way to do more of a profitable activity, in this case explaining an unfamiliar concept to someone patiently and repetitively, without taking more of his own time, he will consider it.

Enter a GS and HyperStudio. Our man builds sales stacks, each explaining a certain investment concept. The tax-deferred, single-premium annuity comes to mind. With carefully drawn illustrations and tables of data (most likely prepared in AppleWorks GS and imported into HyperStudio), he is able to build a stack that addresses each important aspect of the product. The stack probably has a path of connecting buttons that flows the way he likes to conduct the presentation, so he can use it one-on-one. But it also has lots of branches from various points to various other points, so he can leave a client to find his own way back through the data. There will be times when our man will be serving two customers at once: one on the phone or in the conference room, while the other works alone through the product stack, in effect selling to himself.



Above are some samples of images created in HyperStudio.

In this setting, the low cost of a HyperStudio/GS configuration means it is now practical to set up stand-alone stations for customers' use, which brings us to the next character in our story....

What The Doctor Ordered

In this litigious day and age doctors do everything they can to make sure patients get the results they expect. Put another way, they try to be sure that patients do not expect too much. Educating people who need surgery is something more and more doctors are making sure to do, and to document.

We were soaking in a hot tub one July afternoon at a friend's house, a cardiologist, talking about hypermedia. He quickly saw it as a productivity tool for his office. When they schedule somebody for catheterization or heart surgery, one of the doctors has to spend time explaining what will occur in the operating room, as well as the reasons for it and the risks involved. But time is a precious commodity to a doctor.

Some medical offices now own libraries of video tapes for this purpose. A nurse will start the tape for the patient, and when it's over, the doctor will come in to answer any

(continued on page 25)

Fast Apple

(continued from page 3)

is president of The Western Design Center, Inc., is talking to other hardware developers about setting up standards for a "top bus", a high-speed DMA connector that would be on the top of new Apple II boards, while the old, slow bus connects to the bottom (as it does now). The top bus, which in Mensch's vision would support both electrical and optical fiber communications, would let developers build much faster cards.

Mensch is also working on the 65C832, a 32-bit processor that will be plug-compatible with the 65C816, and could run at 10 to 20 megahertz.

Then there's Mensch's co-processor board. Hold onto your hat - this is going to get technical: The Western Design Center makes a 1-chip microcontroller called the W65C134. Based on the 65C02 (the standard Apple II processor), it is a static, low-power device that includes a UART for serial interfacing, interfaces for fast static and dynamic RAM, and a parallel bus for a token passing network, capable of distributed, multi- or parallel-processing over fiber optic cables. That chip is widely used in medical applications, such as pacemakers. Early next year, they will begin making a the W65C265, a similar microcontroller based on the 65C816, with 3 additional serial ports and more parallel processing features. These chips can handle high speed DMA while interfacing with other processors over their parallel bus.

Imagine a board with four of those microcontrollers, each with a full megabyte of RAM (expandable), interconnected for parallel processing, and each running at 10 megahertz. Of course, it would also have a top bus connector, so you could connect multiple boards together. Plug it into your Apple IIe or IIGS, and watch it run at mini- to mainframe speeds. For about $500. In 1990. Not bad, you say?

Now the bad news. (There had to be some bad news.) Software would have to be re-written to take advantage of the board. But with that much power available at that kind of price, who knows?

RAMbling On and On

Older than Apple II, Still Flying High

Make that very high. Do you know that the computers in the Voyagers that just finished touring the outer planets of the Solar System use computers considerably older than the technology in your Apple II?

"Heart of the one-board control system is the computer command subsystem (CCS) which provides a semi-automatic capability to the spacecraft. The CCS includes two independent memories, each with a capacity of 4096 data words. Half of each memory stores reusable fixed routines which will not change during the mission. The second half is reprogrammable by updates from the ground." (JPL press kit, Feb., 1979.)

Those are probably 32-bit data words, so that's equivalent to about 24K of RAM! Or should I say "core". The Voyager's were launched in 1977, around the time the Apple II was first introduced. No doubt their design was "locked down" several years before that, probably before the first microprocessors were even invented.

And when I say "core", I'm not joking. I'm not sure about Voyager's RAM, but I do know Space Shuttles were using old-fashioned "metallic core" memory right up until *this year*, when they were finally scheduled to switch over to "semi-conductor" memory!

"The new computer design began in 1984, whereas the older design began in January 1972. The upgraded GPC's (general purpose computers) provide 2.5 times the existing memory capacity and up to three times the existing processor speed with minimum impact on flight software. They are half the size, weigh approximately half as much, and require less power to operate....The upgraded GPC can perform more than 1 million benchmark tests per second in comparison to the older GPC's 400,000 operations per second. The upgraded GPC's have a semiconductor memory of 256,000 32-bit words; the older GPC's have a core memory of up to 104,000 32-bit words." (The National Space Transportation Reference, June 1988)

Those are IBM computers, by the way, AP-101's, whatever that means.

Good to know our boys in space are working with the latest technology, isn't it?

Red Apples

Meanwhile, watch out for the Bulgarians!

There were two young Russians at A2-Central's Apple II Developer's Conference this summer in Kansas City. They were representing Moscow's International Computer Club, and their own "semi-private" company which distributes Bulgarian-made Apple IIe clones to schools throughout Russia. One of them, Vladimir Federov, spoke excellent English, and was fascinating to talk to. Most of the club is MS-DOS based, and most of the members are government institutions. But there is a small Apple II group that includes a num-

(continued on page 31)

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HyperProductivity on the Apple IIGS

(continued from page 23)

questions. My friend's problem is that he commonly encounters the same questions from patients, usually about things they didn't quite understand on the tape. What he liked about HyperStudio was its ability to play videos (through an Apple Video Overlay card) right on the computer monitor, with hyper buttons and graphics still there to control the flow.

In his office, a HyperStudio stack would show part of a video, then stop to check whether the patient wanted to see it again, go back to some previous segment, or move on to the next. At the end, the patient could review any segment, or pick one of a number of common questions, which would be shown on the screen with answers already included in the stack.

Even more important, by using the "test tracking" feature of HyperStudio, the doctor can obtain an instant printout of what information the patient actually covered, and what they missed, before going into the room. The printout could even be in the form of a representation by the patient that they had seen and understood the material.

Incidentally, I don't expect most doctors to have the expertise or the time to actually convert their tape libraries into hypermedia stacks. Someone would have to do it for them, but they should be able to afford it. Figure it saves a doctor fifteen minutes on each of two occasions per week. With four professionals in a clinic, that's enough time to see eight more patients per week, at $50 to $100 apiece. Obviously, it wouldn't take long to recover the cost of the hardware and software.

Conclusion

My background is in communications and sales. This article has approached productivity from the top line, not the bottom. That is, I see it as a way to boost revenues through more sales per representative, square foot or working hour.

Sales communication has overtones of education about it, but the lessons tend to be short and highly focused. They need repeating to every new customer, but require flexibility to vary the order and pace of the presentation to suit each individual.

Hypermedia is an ideal platform for such presentations. And to the extent that companies already have video libraries to support their sales operations, the IIGS with HyperStudio should be the system of choice. It offers a high-quality color interface to existing video materials, plus outstanding sound and graphics of its own, in the least-expensive hardware configuration currently on the market.

In the 1980's American businesses equipped their "inside" people with computers for financial analysis, word processing, and desktop publishing. In the 1990's, it will be the "outside" people, the sales force, getting computer power. And they will use it to communicate better—live, up close, and personally. The question only you can answer is: will these powerful communications tools be in your hands, or your competitor's?

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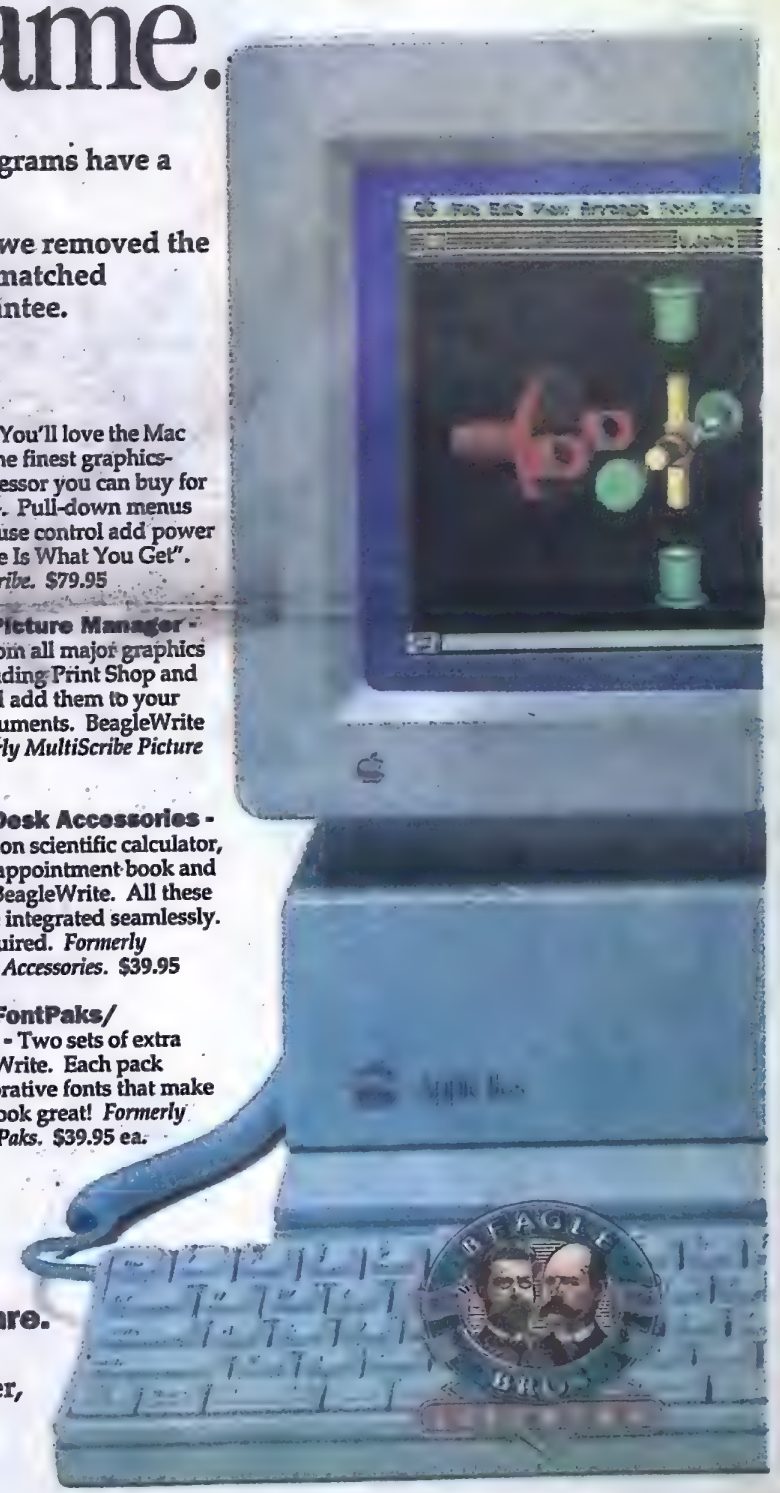

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Making Data Entry Faster & More Accurate

Here are some tips for making your data entry faster and more accurate with DB Master *Professional*:

■ Use Relational Import and Export Rules to look up and post information automatically.

For example, in a UPS shipping log file, you could look up the shipping zone from a "list" based on which range the zip code falls within, then look up the actual shipping charge from another file based on the shipping zone and the weight.

Or, in a system of accounting files, each time you enter a payment in your check register, you could have the program look up the department code based on the payee's name, then use that code to post the amount of the payment to the appropriate record in your general ledger file.

■ If there are fields that you frequently skip to when adding or editing records, turn on the "Tab Stop" option at the Field Options Grid for those fields. You can jump instantly to the next or previous Tab Stop field (even if it's on a different screen "page") by pressing the open-Apple keys together with the up or down arrow key.

■ If your records are spread over several screen pages, and you are only going to be working with a few of your fields for a while, use a "Short Form" that only includes the fields you will be working with.

■ Use the "Calculator" function to enter or change the value in a numeric or dollar/cents field. For example, in a checkbook file, to add the amounts from several bills and put the total into the "Amount of Payment" field, move the cursor to that field, press <Control/C> for the Calculator, enter the formula (amount1+amount2+amount3... etc.) and press Return. The result will instantly appear in the field.

■ Use the "Increment" and "Decrement" commands to automatically add or subtract one from the value in any numeric, dollar/cents or date field.

■ To make the same change or changes to a group of selected records, or to all of the records in a file, use the Global Editor. For instance, to increase the prices of all of the parts in a particular product line by the 5%, choose the Global Editor option from the Main Menu, then enter search criteria to find just the records for that product line. When the first record appears, go to the price field and use the Calculator to set it equal to 1.05 times itself. When you save the edit and ask for the next record, the Global Editor will take over and perform the same calculation for all of the selected records.

■ Use Required Fields to insure that critical fields are filled in. You can even have a computed field that is a required field to test for appropriate entries. For example, in a checkbook file where field #1 contains a "C" for Checks and a "D" for Deposits, and where field #7 is the "amount of payment" for checks, and field #8 is the "amount of deposit" for deposit records, a required field at field #20 with the formula:

F20 = ((F1="C") AND (F7>0) AND (F8=0)) OR ((F1="D") AND (F8>8) AND (F7=0))

would prevent you from adding a check that had no amount filled in, or a deposit where you put the amount in the wrong field, etc.

■ If you only want to allow certain values in a particular field, such as department codes or state abbreviations, use a Field Validation Rule to insure that only entries from a special "list" are allowed in that field. You can also use Field Validation to require entries to be within a certain range, or even within any one of several ranges.

■ Use Auto Date and Auto Time fields. These fields automatically "date stamp" each record with the date or time when the record was added to the file, or when it was last edited.

■ Enter the current date or time in a field with one keystroke (Control/W for "When").

■ Use one of the "default" modes ("standard defaults" or "last record default mode") to fill in fields with frequently used data when adding records.

Finally, here are two tips for using DB Master *Professional* in retail and other "point-of-sale" applications:

■ The "Receipts" option lets you automatically print a 1-record report each time you add a record to the file. By setting up the appropriate report format for a receipt or invoice, you can add a record for a transaction, and a few moments later, hand your customer a printed record.

■ For even faster data entry, you can use a "bar code reader" to enter information directly into your DB Master records. For instance, TPS Electronics (4047 Transport, Palo Alto, CA 94303) has a bar code reader that plugs directly into the "Desktop Bus" connector on an Apple IIGS keyboard. To use it (once you have your codes printed), just move the cursor to the field in question, and scan the code with the reader. Whatever characters are encoded into the bar code will appear just as they would if you typed them yourself.

Copying Primary Key Fields Onto Other Screen Pages

Several DB Master users have asked us how they can copy their primary key fields from the first screen page of their records onto other screen pages, so they will always be able to see which record they are editing. Unfortunately, there is no easy way to do that with alphanumeric fields, but if you've got numeric or date fields in your primary key, all you have to do is add floating point numeric or date fields to your later pages, and create computed field formulas for those fields setting them equal to the corresponding primary key fields (e.g. F50 = F1).

To copy the information into those fields while you are adding a record, simply press <Control/X> to perform the rules. Otherwise, every time you add or edit a record, the computed field formulas will copy the data for you.

Macros for DB Master

If you have an Apple IIGS, there are two general-purpose "macro" programs that you can use with DB Master and DB Master *Professional*:

MacroMate, $49.95
Roger Wagner Publishing
1050 Pioneer Way, Suite P
El Cajon, CA 92020
(619) 442-0522

Diversi-Key, $45
Diversified Software Research, Inc.
34880 Bunker Hill
Farmington, MI 48331
313-553-9460

Both of these programs let you automate repetitive tasks by "recording" sequences of keystrokes that can later be "replayed" whenever needed. For more information, contact the publishers listed above.

30/60/90 Day Receivables Dating

People frequently ask how they can print customer statements with "receivables aging". In other words, they want the statements to show what is owed for current invoices (0-30 days old), and what is owed for 30-60 day old invoices, 60-90 day old invoices, etc.

Let's assume that each invoice is in a separate record that includes the customer's name or number, the invoice date, and the amount due. You would tell DB Master's report generator to select just those records where the amount due is greater than zero, and to sort and group the records by the customer name or number.

By printing each customer's name and address in a "group header", and the date and amount of each invoice in the "body" of the report, you can produce individualized statements for each customer.

By adding a "group footer" with the appropriate computed fields, you can also show each customer's total and aged balances. Let's assume that the date of the invoice is in field #3, and that the balance due is in field #50. The computed field formulas for the report should look like this:

F201 = CD - F3

F202 = F50 * (F201 < 31)

F203 = F50 * ((F201 > 30) AND (F201 < 61))

F204 = F50 * ((F201 > 60) AND (F201 < 91))

F205 = F50 * ((F201 > 90) AND (F201 < 121))

F206 = F50 * (F201 > 120)

Field 201 calculates the number of days between the date of each invoice and the current date ("CD"). Each invoice's balance due is then put into one of the other computed fields, depending on its age.

Finally, in the group footer, you would place the *totals* of fields 202 thru 206, along with free-form text to format the footer however you like.

This can produce a statement that looks like this:

```
STATEMENT

Stone Edge Technologies, Inc.
P.O. Box 3200
Maple Glen, PA 19002

Statement Date: 30-Sep-1989

Customer #: 17-307

Invoice #          Date          Balance Due

62087              22-May-89     250.00
62135              07-Jul-89     175.00
62190              23-Jul-89     100.00
62220              15-Aug-89     500.00
62289              15-Sep-89     350.00

* Current * 31-60 Days * 61-90 Days * 91-120 Days * Over 120 Days *  Total  *
*  350.00 *   500.00  *   275.00  *                 *    250.00     * 1375.00 *
```

Tips for Using Conditional Printing Rules

DB Master's "Conditional Printing Rules" let you use "IF-THEN-ELSE" logic to tell its report generator "if some condition is true, print the following line or lines; otherwise, print a different set of lines". Or you can use the new "skip" command to say "If the following condition is true, skip this record entirely and go on to the next record". Here are some tips for using Conditional Printing Rules:

Conditional Printing in Headers & Footers:

To use a conditional printing rule in a header or footer, *first* set up the header or footer, *then* enter the conditional printing information on the appropriate lines within that space.

Conditional Printing Formulas:

When you enter the condition that you want the program to test (i.e., the conditional printing formula), you will obviously have to refer to one or more fields. In some cases, you should "place" the fields on the line, the same way you would place them to print them (using <Control/A> or <Open-Apple/A> to Add them to the layout). In other cases, you should simply type an "F" and the field number (eg. F17 or F122) as part of the formula. Usually it doesn't matter which method you use, but there are some special cases where it does:

■ To use a report computed field in a conditional statement, you must "place" the field with <Control/A>; otherwise, you will get an error message when you print the report. Note that you should never use a report computed field in a conditional "Skip this record" command. Since computed field formulas are evaluated *after* "Skip" commands are executed, the computed field would always contain the value from the previous record, giving you unpredictable results.

■ Similarly, fields 251 thru 255 (the special fields for counting records by the group or for the entire report, and the report date, time and page number fields), must also be "placed". (The only reason I've heard of for using one of these fields in a conditional statement was to skip the page header on the first page of a report — but I'm sure somebody will come up with another reason!)

■ To treat a date field as a number, such as in comparing two date fields or testing a date field against the current date, you should type the field number, instead of placing the field. Examples:

IF-> F12 > F13 ; ie, if the date in field 12 is later than the date in field 13

IF-> (CD-F12) > 90 ; if field 12 is more than 90 days ago (CD=current date)

On the other hand, to test for a specific date, you would "place" the field within typed quote marks, then type the comparison date using the same date format:

IF-> "Date Fld" = "01-01-90" ; "Date Fld" placed with <Control/A>; the rest is typed

■ To test for empty or non-empty fields in a conditional printing rule in a DB Master *Professional* report:

1. Use the "Rules" commands at the Report Layout Screen to start the Conditional Printing Rule.

2. On the line with the "IF", type a quote ("), then press <Control/A> to Add a field to the layout. Enter the field number of the field you want to test, and set the field's width for the report to "1".

3. Move the cursor to the space immediately to the right of the field, and type another quote (").

4. To test for empty fields, type:

=" "

that is: equals, quote, space, quote.

5. To test for fields that have something entered in them, type:

<>" "

that is: doesn't equal, quote, space, quote.

Here's how a test for records where a field whose name begins with "R" is empty would appear on your screen:

IF->"R"=" "; the "R" represents the first character of the "placed" field; everything else is typed

Note that you are comparing the *first character of the field*, in quotes, to a single space, also in quotes.

Tips on Choosing Primary Key Fields

The single most important step in designing a DB Master file is deciding on the "primary key" field or fields:

- records are stored in primary key order
- every record in a file must have a unique primary key
- primary key searches are much faster than other searches
- the length of the primary key can affect total storage capacity
- the "based-on" fields in import and export rules must correspond exactly to the primary key fields in related files.

In choosing your primary key fields, keep the following "key" points in mind:

■ Choose fields that will keep your records in a useful, logic order. If you were using file cabinets instead of a computer, how would you file your records? The same system probably makes sense for your records in DB Master.

■ Don't use more fields than you need for unique keys. For example, in a customer information file that will have one record for each customer, the primary key should just be the customer number; the customer's name should *not* be part of the key. If you need a record for each customer for each transaction, then you would have to include the customer number and a transaction number or date in the key; otherwise, you would not be able to have more than one record per customer.

■ Plan ahead for relational rules. If relational rules in file "A" will have to reference records in file "B", then file "A" will usually have to include fields that correspond to *all* of the primary key fields in file "B".

How to Export to a Primary Key Field When You Can't Export to a Primary Key Field!

As you might guess from that title, there's been some confusion over this issue. Let's say you're designing an accounting system. Each time you enter a payment in your Checking file, you want DB Master to create a corresponding record in your General Ledger file. So you set up export rules to create the new records (using the "create if not found" option) and fill them in automatically. That's easy, except the program keeps telling you that you can't export to a primary key field - so how are you supposed to fill in the primary keys in the new records?

The answer is you don't have to — the program will do it for you. Here's how:

Each import or export rule includes one or more "based-on" fields. Those are the fields that DB Master uses to find the appropriate records in the other file. For example, to look up and fill in a department name, you might use a department number as your "based-on" field. (That assumes that the department number is the primary key of the file you are importing from.)

When DB Master performs an export rule, it first takes the contents of the "based-on" fields and uses them to perform a primary key search in the other file. If a matching record is not found, and you have turned on the "create if not found" option, the program will create a record with that primary key, and proceed to do your export.

In other words, in the process of making the record, the program sets up the contents of the key field(s) for you. So even though you can't set up a rule to export to a primary key field, its very easy to export to primary key fields!

DB Master Version Five or DB Master *Professional*:

WHICH IS RIGHT FOR YOU?

More Data Base Power Available In DB Master *Professional*

Stone Edge Technologies, Inc. publishes both DB Master Version Five and DB Master *Professional*, and we are frequently asked about the difference between the two.

First, some similarities: Both are relatively new, powerful data base managers (DBM's), and both include full-featured report generators. They share the same "look and feel"; in fact, many of the screens and most of the commands are identical or nearly so. DB Master *Professional* can use any file created with DB Master Version Five; however the reverse is only true if none of the advanced features of the *Professional* have been used with that particular file.

The most important difference is that DB Master Version Five is a "flat file" DBM, which means that it generally works with one file at a time, while DB Master *Professional* is a "relational" DBM, which means that it can automatically interrelate the data in one file with information in other files. This is done through "import and export rules". For example, an import rule might be used to fill in a customer's name based on their customer number. An export rule could be used to add the total from each new invoice to the appropriate customer's balance. And so forth.

In addition to the relational capabilities, DB Master *Professional* includes a long list of features that are not present in Version Five.

Here is a partial list of additional features in DB Master *Professional*:

- Relational Import & Export Rules look up & post data automatically
- Auto Increment Key Fields — for automatic record numbering
- Secondary Keys for faster searches
- Passwords for file security
- Columns & Grids — enter, search and report on repeating fields, e.g. invoice line items, course and grade lists, etc.
- Tab Fields — for faster data entry
- Short Forms — for more convenient data entry
- Required & Validated Fields for more accurate data entry
- "When" Function enters current date or time with one keystroke
- Calculator — in Add or Edit, calculate and enter results in numeric fields
- Increment/Decrement field contents with 1 keystroke
- Time Math
- Global Editor — do the same edits automatically for all selected records
- "Receipts" Function — print "point-of-sale" receipts, labels, invoices, etc.
- Conditional Printing — "IF-THEN-ELSE" logic in the Report Generator
- Report Word Wrap Zones — for even greater report Layout flexibility
- Left Margin, 6/8 Lines per Inch & Page # options at Print-Time Menu
- Number/Word Formats — print numeric & dollar fields in "word" form
- Improved Merge and Restructure options
- and lots more!

Owners of DB Master Version Five can purchase an upgrade to DB Master *Professional* by contacting Stone Edge Technologies. The current price for the upgrade is $150 plus shipping and handling.

APPLIED INGENUITY NEWS

Provided by
Applied Ingenuity, Inc.
14922 M Ramona Blvd.
Baldwin Park, CA 91706
800-346-0811
Inside CA: 818-960-1485

Welcome to GS Juice Plus

ATTENTION!

4 Megabytes for your IIgs

$699

Finally, a memory card for the Apple IIGS that offers compatibility, expandability, and affordability.

Welcome to GS Juice Plus. A one to four megabyte memory expansion card for the Apple IIGS. GS Juice Plus occupies the expansion memory slot in your IIGS, providing instant compatibility and access to all software and hardware. The GS Juice Plus is the only high capacity memory board that is fully DMA compatible in all banks. So you can rest assured that future add-on cards will be fully compatible with your memory board investment.

Fully Expandable

When it comes to expandability, the GS Juice Plus is a snap. Simply add any standard 1 Megabit DRAM chips to increase capacity. You can add additional memory as your requirements (and budget) grow or purchase a GS Juice Plus fully populated. The choice is yours.

Truly Affordable

Unlike the competition, the GS Juice Plus is truly affordable. A one megabyte GS Juice Plus is only $299, about half the suggested list price of the competition. Save even more on the two and four megabyte versions.

GS JUICE PLUS VS GS-RAM PLUS

	GS Juice Plus	GS-Ram Plus
Max. Memory	4 Meg	6 Meg
Disk Cache	Yes	Yes
Expansion Port	Yes	Yes
Memory Diagnostics	Yes	Yes
Made in	USA	USA
Warranty	5 Years	5 Years
Trial Period	15 Days	15 Days
Toll Free Ordering	Yes	No
APW Expander	Yes	Yes
Configuration Blocks	Yes	No
Socketed Ram	Yes	Yes
DMA Compatible	100%	Partial
1 Meg List Price	$299	$599

With today's growing library of larger applications, a 1 megabyte card is quickly becoming a major limitation. Order your GS Juice Plus today and save.

Credibility

Claris Corp., the publisher of AppleWorks, has chosen the GS Juice Plus for its combination of high performance and low cost without sacrificing quality. Wow, what a recommendation!

Ohio Kache, the maker of the DMA disk controller card, has chosen the GS Juice Plus because, as they say, it is the only large capacity memory card for the IIGS that is 100% DMA compatible.

Beagle Bros., another respected company also uses Applied Ingenuity's GS Juice Plus and Inner Drive.

A few other AI customers:

- Apple Computer
- Stone Edge Technology, creator of DB Master
- Zip Technology
- Nagoya Institute of Technology, Japan
- Roger Wagner Publishing

Specifications

Chip type	1 meg x 1 bit
Chip class	Dynamic RAM
Chip speed	100 or 120ns
Power consumption	2 watts typ.
Number of banks	4
Configurations	1, 2 or 4 meg
Memory selection	via jumpers
Base material	G-10 UL
Logic chips	74fXX

Hassle Free Warranty

The GS Juice Plus also comes equipped with one of the best warranties in the industry. A full 5-year warranty accompanies every GS Juice Plus against defects in materials and workmanship. If anything goes wrong during the warranty period, we fix it free. And if something does go wrong, we have a 48 hour turn-around for most repairs.

Welcome to the Inner Drive

20 Meg Hard Drive — $399
40 Meg Hard Drive — $599

Imagine a had disk that doesn't need its own power cord. Doesn't have any external cables. Doesn't require any space on your desktop. and best of all, can get you to the Finder in under 30 seconds.

Welcome to Inner Drive. The first true internal hard disk expansion system for the Apple IIe and Apple IIGS. Simply put, the Inner Drive replaces your existing power supply with a combination power supply/hard disk unit. It not only increases your system's storage capacity, but gives you extra power to satisfy the demand of today's complex add-on cards and dense memory boards. Whether you choose the twenty or forty Megabyte model, the Inner Drive is ready to take your system to its limits, using standard ProDOS 8 and/or GS/OS operating systems.

No-Tool Installation

Unbelievable as it may seem, installation of the Inner Drive in the Apple IIGS requires no tools. Not even a screwdrive. Simply remove your existing power supply by pulling back on a plastic snap, and lift it out. Do the reverse to install the Inner Drive. Plug the Inner Drive's controller card in any slot you choose. You're now up and running, probably within ten minutes after opening the shipping carton. If you ever want to remove your Inner Drive, it's just as easy.

The Performance Leader

Only the Inner Drive gives you maximum performance and speed because of its unique hardware and software design. We start with disk drives designed for use in high speed IBM systems, then engineer them to perfectly match the Apple II. The Inner Drive avoids all of the unnecessary translation delays inherent in SCSI hard disks. The result? Your Apple II is electronically "closer" to your disk data which means faster access and loading of your favorite applications. Also, we've developed what's called a "native mode driver," which speeds up disk access another 200% when using GS/OS (the same technique used for Apple's LaserWriter). We even have a SCSI version for those who feel they must have SCSI. Best of all, our speed improvements are completely transparent to both ProDOS 8 and GS/OS. You can use an unmodified, standard System Disk with any Inner Drive. And it's good to know that when Apple releases the next version of ProDOS 8 and GS/OS, it will automatically be compatible with your hard disk investment.

Cool and Powerful

If the capacity and speed advantages of the Inner Drive aren't enough to convince you, take a hard look at the Inner Drive's power supply. It's a heavy duty, fan-cooled powerhouse that actually exceeds the power output of your existing Apple supply. And with today's dense memory cards and complex add-on boards, you need all the power you can get to your slots.

More importantly, noisy, poorly-regulated power supplies can cause anything from frequent system hangs to major motherboard repairs. Our regulation and "ripple" specification is one of the tightest in the industry, resulting in an electrically "quiet" design.

Specifications

INNER DRIVE	20	40
Formatted Capacity	20.4 MB	41.6 MB
Operating System	ProDOS	ProDOS
Partitions	1 or 2	1 or 2
Unlimited Controller Slot	1,2,4-7	1,2,4-7
Track-to-Track	4.5 ms	4.5 ms
Seek	68 ms	68 ms
Cylinders	782	782
Heads	2	4
Sectors	27	27
Interleave	7:1	7:1
Multi-Block Transfers	Yes	Yes
Voltage Input	85-264VAC	-
Frequency Input	47-440Hz	-
Power Output	+5V, 7A peak	-
	+12V, 3A peak	-
	-12V, 250mA	-
	-5V, 250mA	-
Regulation	+/12% (5V)	-
	+/-5% (12V)	-
Ripple	<50mV (5V)	-
	<120mV	-

Lots of Software to Get You Started

If you think you'll have trouble filling a twenty or forty megabyte hard disk, we get you off on a pretty good start.

Every Inner Drive is shipped with over 3 megabytes of software including public domain, shareware and product demos of graphics, sounds, utilities, fonts, game programs and much more. And of course, each Inner Drive is fully formatted and ready to use right out of the box.

In addition, your Inner Drive comes with our own utility software (on floppy and hard disk) that allows you to reconfigure partitions, verify disk blocks and perform other essential functions to keep your drive in tip top shape.

Hassle Free Warranty

The Inner Drive also comes equipped with one of the best warranties in the industry. A full one-year warranty accompanies every Inner Drive against defects in materials and workmanship. If anything goes wrong during the warranty period, we fix it free. And if something does go wrong, we have a 48 hour turn-around on most repairs.

OHIO KACHE SYSTEMS NEWS

Provided by
Ohio Kache Systems Corp.
4162 Little York Rd., Suite E
Dayton, OH 45414-2566

Order line
800-338-0050

Direct
513-890-3913

Tech Support:
513-890-7364

OKS HAS HIGHEST PERFORMANCE DISK CONTROLLERS

THREE NEW PRODUCTS SAVE TIME, MONEY, AND ENHANCE PRODUCTIVITY

Ohio Kache Systems Corp., makers of the Multi-Kache multi-disk controller products, has unveiled a series of three new products designed to increase the productivity of the Apple II user.

The new products include the Fast-Kache, the InnerDrive™ Option Board, and the Vulcan™ Option Board. According to Andrew Vogan, Vice-President of Engineering, the new offerings respond to the desire of computists for speed at a reasonable price. Vogan also said that "All Ohio Kache products are fully compatible with current Apple computers, including the memory expanded IIgs, and the sturdy IIe computers."

The Fast-Kache is a dedicated SCSI hard disk controller, providing a low-cost alternative to the Apple SCSI card. It comes complete with software for installation, a super-fast native mode driver, a Classic Desk Accessory, and a utility program paralleling the CDA for use under ProDOS 8 and on IIe computers.

The InnerDrive™ Option Board and Vulcan™ Option Board are designed to work with the two popular internal hard drives for the Apple II family of computers. Both boards yield a seamless integration with existing software, and offer the speed that was previously lacking. These products come complete with software, native mode driver, CDA, and a utility program.

When confronted by allegations that other products are faster, "We have an unbeatable line of products for the Apple II family of computers," said Vogan. The products "combine DMA (Direct Memory Access) with hardware caching and a sophisticated multitasking operating system" to provide "the quickest and most convenient way of accessing data." Direct memory access is a technique whereby information is put directly into the computer's memory, bypassing the slower means of using the computer's microprocessor.

He went on to explain, "Other companies have depended on native software to do their caching for them, which runs at the same speed as the computer. The Kache boards execute at a blindingly fast 10 megahertz, and implement the caching in hardware." Megahertz is a way to describe how fast a computer is.

Vogan smiled when asked about future products from Ohio Kache, and said, "We are here to stand behind and support the Apple II user fully. Look for exciting, new products for years to come, including a 100 megabyte external hard drive."

NEW PRODUCTS FROM OKS SAVE TIME, MONEY

If you have an Apple II computer and you *haven't* considered an Ohio Kache product, you have been wasting your time.

Ohio Kache has been hard at work creating a flexible line of products to increase your productivity. We introduced the Multi-Kache one year ago, and thousands of satisfied customers later, Ohio Kache has now carefully plotted the demand for its products and has acted accordingly. New products have been released that already promise to be best-sellers in their own right.

Ohio Kache Systems is accepting orders now for the Fast-Kache hard disk controller. The Fast-Kache takes the proven technology of the Multi-Kache, adds in the SCSI hard disk controller, removes the floppy disk electronics, and creates the fastest hard disk you'll ever see on an Apple II.

Ohio Kache is also accepting orders for its new InnerDrive™ Option Board and Vulcan™ Option Board. Designed to work with the two popular internal hard drives on the market for the Apple II computers, these new products provide the speed necessary for the serious computist.

And of course, all Ohio Kache products are compatible with the leading peripherals, including the Applied Engineering Transwarp GS™, the Innovative Systems Floating Point Engine, all Applied Ingenuity memory products, all Applied Engineering memory products, the Zip Chip and Rocket Chip accelerators for the IIe and IIgs, and most other Apple II products.

TECHNICAL SPECIFICATIONS

Fast-Kache™ & Multi-Kache™ boards

- Supports IIe and IIgs computers
- Data transfer rate:
  - Hard disk to cache memory: 1,400 K/second
  - Cache memory to Apple IIgs: 1,024 K/second
  - Cache memory to Apple IIe: 980 K/second
- Effective transfer rates
  - ProDOS 8, (BASIC.System) 680 K/second
  - ProDOS 8, (Copy II Plus) 730 K/second
  - GS/OS (both 4.0 and 5.0) 912 K/second
- A super-fast native mode driver is supplied, supporting GS/OS.
- A 16-bit data path is used for non-DMA transfers.
- Fully compatible with all Applied Engineering GS-Ram family products.
- Fully compatible with all Applied Ingenuity GS-Juice family products.
- SCSI details:
  - Up to 8 SCSI devices attached.
  - Up to 256 Megabytes of storage.
  - Uses ANSI (and Apple) standard partitioning.
  - Plug-and-play compatible for the Apple SCSI Card, Rev C.
  - Supports Sider, Sider II, D2, D4A, D4T, D4, D7, D9 hard drives.
  - Supports Chinook CT-20, CT-40, and all other Chinook SCSI drive offerings.
  - Supports C.M.S. SCSI drives.
  - Supports Apple Computer's entire line of SCSI hard drives. 20SC, 40SC, 80SC.
  - Supports most Macintosh SCSI drives.
  - Supports most other-brand or home-made SCSI drives.

Questions & Answers

Q: I already have a SCSI card. When I get the Kache board, will it work with my SCSI card or in lieu of it?

A: The Fast-Kache and Multi-Kache with SCSI both replace your existing SCSI board. Ohio Kache has worked hard to make the Kache cards backwards compatible with the partitioning information laid down by the Apple partitioning programs. Thus, in most cases using the Kache cards is plug-and-play. And you can always sell your used Apple SCSI card to a less-enlightened individual.

Q: I boot most of the time to Prosel 16 and some of the time to Prosel 8. I have an 80 megabyte drive and even with System Disk 5.0 it takes forever. Will this boot time be shortened appreciably?

A: The boot time will be significantly reduced. For example, a system with a Fast-Kache, 1.5 megabytes of RAM, System Disk 5.0, 3:1 hard drive, 5 init files, and 16 desk accessories, takes about 14 seconds to the finder. Fast? You bet.

Q: So, I can buy a Fast-Kache or Multi-Kache INSTEAD of an Apple SCSI card and hook up most any of those nice, small, quiet, fast Mac drives, and boogie?

A: Exactly. There have been no problems with any SCSI hard drives. Compatibility with the Fast-Kache is actually less stringent than with an Apple SCSI card or System Disk 5.0. You can hook up a drive which otherwise would not work on an Apple SCSI card, such as the First Class Peripherals Sider hard drives. And of course, Ohio Kache has tested the use of the Kache boards with all of the Apple Operating Systems, including ProDOS 8, ProDOS 16, GS/OS, and DOS 3.3.

Q: I have an 80 megabyte disk drive, and I hear that ProDOS supports only hard disks with less than 64 megabytes. How do your Kache boards give me access to all of my hard drive at once?

A: Ohio Kache also sells a low-cost board called a Disk Expander, which indicates to the operating system where some more partitions can be found. The Disk Expander was designed with ProDOS 8 and Pascal 1.3 in mind, providing the necessary "hooks" in hardware for the operating system to find additional drives. While GS/OS will handle more than 2 drives per slot, all versions of ProDOS 8 will not assign more than 2. OKS chose to avoid patching each version of ProDOS, since newer versions of ProDOS would invalidate that action, and require contacting Ohio Kache for the new patches. A Disk Expander alleviates that inconvenience, and allows you to go full-speed ahead when new system software arrives from Apple Computer.

Q: What's the difference between the Fast-Kache and the Multi-Kache boards? Put differently, why would I want a Multi-Kache board?

A: The Multi-Kache will control floppy drives; the Fast-Kache will not. If you want faster-than-RAM-disk speed from your floppy drives as well as your hard disk, you would purchase the Multi-Kache with SCSI Option.

Q: So basically, the Fast-Kache costs less than a Multi-Kache board because there's not as much electronics on it?

A: Yes.

Q: Can you give us a price on this little goody? Sounds like exactly what I've been looking for...

A: Retail prices:

Fast-Kache	256K $250, 1Meg $375
Multi-Kache	256K $295, 1Meg $465
Vulcan™ Option	79.95
InnerDrive™ Option	79.95
Disk Expander	35.00

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BUSINESS PHONE NO._____

SIGNATURE_____ DATE_____

INDUSTRY
(Please circle ONE)

1 Education (grade K-8)
2 Education (grade 9-12)
3 Education (post-secondary)
4 Health, medical services
5 Law
6 Retail
7 Manufacturing
8 Finance, insurance, banking, real estate
9 Government/military
10 Consulting
11 Other business services
12 Computer hardware
13 Computer software
14 Other

FUNCTION
(Please circle ONE)

1 Administration
2 Production
3 Sales/marketing
4 Education/training
5 Accounting
6 Other

COMPUTER MAGAZINES YOU READ REGULARLY
(used to read in the case of A+)
(Circle all that apply)

1 A+
2 inCider
3 Nibble
4 IIGS Buyers Guide
5 Call A.P.P.L.E.
6 A2-Central (formerly Open-Apple)
7 Byte
8 Other _____

COMPUTERS YOU USE
(Circle all that apply)

1 Apple II Plus
2 Apple //e
3 Apple //c, //c+
4 Apple IIGS
5 Apple III
6 Laser 128/128EX
7 Macintosh
8 MS-DOS compatible

HOW LONG HAVE YOU OWNED AN APPLE II (OR COMPATIBLE) COMPUTER?

_____

AMOUNT OF RAM IN THE APPLE II COMPATIBLE COMPUTER THAT YOU USE MOST OFTEN:

_____

DO YOU OWN:

HARD DISK?
__YES __NO
__PLAN TO PURCHASE

MODEM?
__YES __NO
__PLAN TO PURCHASE

LASER PRINTER?
__YES __NO
__PLAN TO PURCHASE

ACCELERATOR?
__YES __NO
__PLAN TO PURCHASE

EXTRA RAM?
__YES __NO
__PLAN TO PURCHASE

APPLICATIONS YOU USE REGULARLY
(Circle all that apply)

1 Word processing
2 Spreadsheet
3 Data base management
4 Telecommunications
5 Graphics
6 Desktop publishing
7 CAD/CAM
8 Other

PLEASE LIST APPLE II PROGRAMS THAT YOU USE ON A REGULAR BASIS FOR WORD PROCESSING, SPREADSHEET, DATA BASE MANAGEMENT, COMMUNICATIONS, GRAPHICS, DESKTOP PUBLISHING, CAD/CAM, AND OTHER PRODUCTIVITY APPLICATIONS:

_____
_____
_____
_____
_____
_____
_____

Complete form and mail to

II at Work
P.O. Box 3200, Maple Glen, PA 19002

Who Are You?

We thought our readers might be interested in the kind of people who are reading and subscribing to *II at Work*. The following information comes from a random sample of about 300 out of the thousands of filled-in subscription forms that we've received in the last three months.

Who You Are and What You Do

As you would expect, the largest group of you work in education, followed by consulting and health-related professions, with the rest scattered in a variety of fields. You hold positions in administration, education and training, with smaller numbers in sales and marketing, production, accounting and other areas.

- 37% of you work in education, mostly kindergarten to twelfth grade
- 10% of you work in health- or medical-related fields
- 10% of you are consultants
- 7% are in manufacturing
- 6% are in "other business services"
- 5% are in computer hardware or software
- 5% are in government or military service
- 4% are in retailing
- 4% are in finance or insurance

- 30% of you hold administrative positions
- 29% are in education or training
- 11% are in sales or marketing
- 7% are involved in production
- 5% are in accounting functions

Which Computers You Use

You use a variety of personal computers, with many of you reporting that you use more than one system. We were surprised at the number of you who use Macintosh and MS-DOS systems. And it's nice to know that there are still some Apple III's in use!

- Apple II Plus 18%
- Apple IIe 59%
- Apple IIc, IIc+ 27%
- Apple IIGS 53%
- Apple III 2%
- Laser 128/128EX 14%
- Macintosh 19%
- MS-DOS compatible 27%

Which Magazines You Read

Most of you read several Apple II publications, although more than 12% of you don't read any of the "glossy" Apple II publications: inCider, Nibble or the IIGS Buyers Guide. (Of course, all of you are now devoted readers of II at Work!)

- 70% used to read A+
- 82% now read inCider
- 36% read Nibble
- 36% read A2-Central (formerly Open-Apple)
- 20% read the IIGS Buyers Guide
- 13% read Call A.P.P.L.E.
- 10% read Byte
- 22% of you also read other computer-related publications

What You Own, or Plan to Buy

If you stick to your purchasing plans, there are going to be a lot of "power" users out there, and a lot of happy hard disk and accelerator manufacturers! Even laser printers are finding their way into Apple II systems:

- Three quarters of you already own extra RAM, and another 23% of you plan to purchase some.
- A third of you own hard disks, and an additional 40% of you plan to buy one.
- Over half of you own modems, and that number will increase to three quarters if you stick to your plans.
- A third of you own accelerators, with another 27% planning to buy one.
- 7% of you already own laser printers, and that number should grow to 20%

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Composite video to RGB adapter for Sharp and Kodak LCD projector, video monitors, projectors $149.
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MAC SE, PLUS RGB Video Adapter MCK-1 $115.

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I+/IIe/IIc/Franklin power supply repair	$ 29	Disk II / Franklin drive alignment	$ 19

Applied Engineering Products . . .

Vulcan hard drives		RamKeeper	$142	DataLink 2400	$179
20 Meg	$472	40 Meg	$612	PC Transporter (786K)	$365	Phasor	$129
Ramfactor 256K	$193	TransWarp GS	$285	Parallel Pro	$ 74
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Apple Compatible cards / drives . . . With 1 year warranty

Z 80 (CP/M)	$ 29	80 column for the I+	$ 45
64K/80 column for the IIe	$ 29	128K memory for the I+, IIe	$ 69
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Super Serial Card (cable & manual)	$ 49	I+, IIe...$ 76 . . . IIc, IIgs, Laser	$ 79
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Year of the Fast Apple

(continued from page 24)

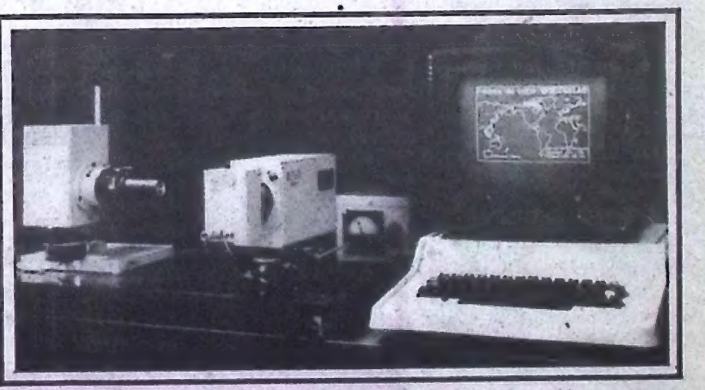
ber of private individuals.

Evidently the Bulgarians have modified the character generator, ProDOS and AppleWorks for the Cyrillic alphabet, which has 33 letters. Pretty impressive.

There's a saying that "freedom of the press belongs to those who own one" (A.J. Leibling). Since a personal computer with a word processing program and a printer is about the simplest printing press there is, one of the best ways to insure that Glasnost and Peristroika continue is to get computers and printers into the hands of Russian citizens!

Is ProDOS 8 Dead?

On the application form for Apple's expensive new "Apple Partners" program, you have to say which operating systems you use. The list includes A/UX, GS/OS, MS-DOS, OS/2, Macintosh OS, and even, believe it or not, CP/M, which has been brain dead for years. What's missing? Only the one operating system that works on the Apple IIe, IIc and IIcPlus - ProDOS 8! Apple's tech support people have assured me it was an honest mistake, and of course I believe them. Not bad for a Freudian slip though, was it?



Bulgarian Apple IIe clone runs spectascopic lab equipment.

RepairWorks: Don't Loose Data Without It!

(continued from page 19)

and then load it into AppleWorks to create a new word processing document.

After you select the method of recovery, RepairWorks asks you to choose the file name for the new file. The default name is the original file name with .RW appended. You can also enter a new file name for the recovered file. Finally, RepairWorks asks you to specify the location for the recovered file. You can specify the same disk/directory as the damaged file, or a different directory.

RepairWorks will then begin to recover your damaged file, with its progress displayed on the "Damage Control" screen. When RepairWorks finds damaged data, it either inserts a message in your text indicating the data is damaged, or substitutes an asterisk (*) for the bad data. When RepairWorks has recovered your file, you can load it into AppleWorks.

If you recover your file as an ASCII text file, you will have to load it by creating a new word processing document from an ASCII text file. When you view this new file, you will see that RepairWorks has included information about the printer codes that were in the damaged file. You will need to use the Open-Apple O menu to insert the proper printer codes.

Recovering Data Base Files

Damaged data base files are recovered as ASCII text files. Again, you are given the option of using a default name or entering a new file name. You also have the option of recovering the file in a different directory. When RepairWorks has finished recovering your file, it will display the category names, number of categories, and other relevant data on the screen. It will then give you the option of printing this information, as well as specific instructions on how to create a new data base from your recovered file. If the header of the original file is damaged, RepairWorks assumes that your file had the maximum number of categories (30). You can always delete any extra categories after you create the new file.

Summary

RepairWorks is a powerful program. It can recover valuable data that would other wise be lost. RepairWorks can also save you the time and effort required to reenter your data. Remember, don't loose data without it.

RepairWorks is available from Quality Computers for $39.95. Bag of Tricks and ProSel are also available from Quality Computers and other resellers. Quality Computers 15102 Charlevoix Grosse Point, MI 48230 1-800-443-6697

National AppleWorks User Group (NAUG) Box 87563 Caton, MI 48187

Dr. Gary R. Morrison, author of RepairWorks, is an associate professor of instructional design and computer-based instruction. He is the author of several research papers, book chapters and computer-based instructional units. His latest project is a complete computer managed learning and testing system which he uses in one of his courses. In his spare time, he writes articles about computers and develops programming utilities. RepairWorks is supported by Dr. Morrison in the AppleWorks Forum "Direct Connect" folder on AppleLink Personal Edition. He can also be reached on GENIE at G.R.MORRISON.

TimeOut

(continued from page 18)

Update Data Base or Spreadsheet Files with Reported Information

ReportWriter lets you write back to your data base or spreadsheet files. For example, teachers can post new running averages for a student back to their master student file. Year-to-date sales can be updated in salesman and product files. Running an invoice or printing an order can automatically update an inventory file. Churches could update a member file with each week's offering. Teachers and personnel managers can update attendance records.

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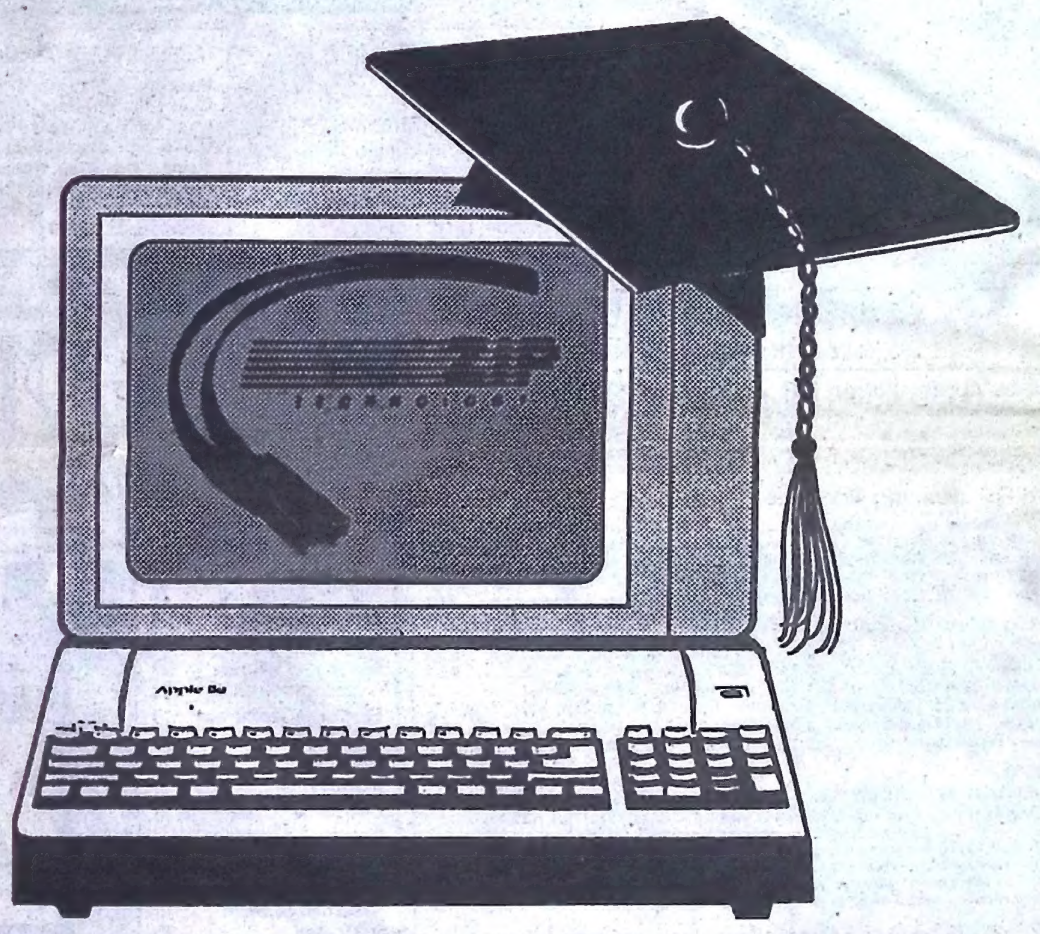

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